WEDNESDAY POSTERS

Wednesday posters should be set up 7:30 – 8:00 am on Wednesday and removed 7:30 – 8:00 pm on Wednesday. Authors of odd numbered posters (i.e., 001, 003, 005) present 8:45 – 10:15 am on Wednesday. Authors of even numbered posters (i.e., 002, 004, 006) present 1:30 – 3:00 pm on Wednesday.

ANTITERRORISM MS

WPA 001 **Advancements in the Detection of Pathogenic Bacteria by Bacteriophage Amplification Coupled With MALDI-MS**; Jon C. Rees[1]; Kent J. Voorhees[1]; Ted L. Hadfield[2]; *[1]Colorado School of Mines, Golden, CO; [2]Armed Forces Institute of Pathology, Washington, DC*

WPA 002 **MALDI Ion Mobility Time-of-Flight Mass Spectrometry for Biological Agent Identification**; J. Albert Schultz[1]; Michael Ugarov[1]; Shelley N. Jackson[2]; Jae-Kuk Kim[2]; Sushama Mishra[2]; Kermit K. Murray[2]; *[1]Ionwerks, Inc., Houston, Texas; [2]Louisiana State University, Baton Rouge, LA*

WPA 003 **Mass Spectrometry Based Immunoassays for Detection of Biological Pathogens and Warfare Agents**; Dobrin Nedelkov[1]; Avraham Rasooly[2]; Randall W. Nelson[1]; *[1]Intrinsic Bioprobes Inc., Tempe, AZ; [2]FDA, CFSAN, College Park, MD*

WPA 004 **Qualitative and Quantitative Analysis of Bacterial Proteins Using an In-House Biological Sample Processing System-Ion Trap Mass Spectrometer**; Rabih E. Jabbour[1]; Waleed M. Maswadeh[2]; Samir V. Deshpande[3]; A. Peter Snyder[2]; *[1]Geo-Centers, Inc., Aberdeen Proving Ground, MD; [2]U. S. Army, Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD; [3]Science & Technology Corporation, Edgewood, MD*

WPA 005 **A Novel Approach for Identification of Bacteria Using Shotgun Proteomics and Searching a Database Translated from All Sequenced Bacterial Genomes**; Jacek P. Dworzanski[1]; A. Peter Snyder[2]; Rui Chen[3]; Haiyan Zhang[3]; David Wishart[3]; Liang Li[3]; *[1]Geo-Centers, Inc., Aberdeen Proving Ground, MD; [2]Geo-Centers, Inc.,, Aberdeen Proving Ground, MD; [3]U.S. Army Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD*

WPA 006 **Optimal Fusion of MALDI MS Spectra for Rapid and Reliable Detection of Biological Warfare Agents**; Jeffrey S. Lin; Plamen A. Demirev; Anshu Saksena; Andrew B. Feldman; *Johns Hopkins University Applied Physics Laboratory, Laurel, MD*

WPA 007 **Forensic Characterization of Agar in *Bacillus* Spore Samples**; Faith A Hays[1]; Kristy J Reynolds[1]; Catherine Fenselau[1]; Dean Fetterolf[2]; David Wilson[2]; *[1]University of Maryland, College Park, MD; [2]FBI, Quantico, VA*

WPA 008 **Identification of Bacteria and Bacterial Mixtures by MALDI-TOF-MS Marker Ion Patterns**; Kristi J. Oberbroeckling[1]; Jim Robertson[2]; Brian A. Eckenrode[2]; *[1]Oak Ridge Institute for Science and Education, Oak Ridge, TN; [2]FBI Academy, Quantico, VA*

WPA 009 **Application of a MALDI Quadrupole Ion Trap Time of-Flight Mass Spectrometer to Sequence Analysis of Tryptic Peptides Generated *in situ* from Microorganism Mixtures**; Kathryn Jackson[1]; Bettina Warscheid[2]; Chris Sutton[1]; Catherine Fenselau[2]; *[1]Kratos Analytical by Shimadzu Biotech, Manchester, UK; [2]University of Maryland, Department of Chemistry and Biochemistry, College Park, MD*

WPA 010 **Laboratory MS Identification of Biomarkers from a Fielded Pyrolysis-Gas Chromatography-Ion Mobility Spectrometry (Py-GC-IMS) Bioaerosol Detector**; A. Peter Snyder[1]; Waleed M. Maswadeh[1]; Ashish Tripathi[2]; Jacek P. Dworzanski[2]; *[1]U.S. Army Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD; [2]Geo-Centers, Inc., Aberdeen Proving Ground, MD*

WPA 011 **Preserving and Recovering Peak Intensity Reproducibility in the Pyrolysis MAB and MALDI Mass Spectra of Intact Microbial Cells**; Jon G. Wilkes[1]; Fatemeh Rafii[2]; Rajesh Nayak[2]; Susan A. McCarthy[3]; Alexandre A. Shvartsburg[1]; Larry G. Rushing[1]; Michael Beaudoin[4]; Jean-Francois Gagnon[5]; Daniel A. Buzatu[1]; *[1]Chemistry Division/NCTR/FDA, Jefferson, AR; [2]Microbiology Division/NCTR/FDA, Jefferson, AR; [3]Dauphin Island/CFSAN/FDA, Dauphin Island, AL; [4]Logicon, Jefferson, AR; [5]Dephy Technologies, Montreal, Canada*

WPA 012 **Detection of Protein Fingerprints of Eukaryotic Opportunistic Pathogens by MALDI-TOF MS and Proteome Database Search**; Hercules Moura[1]; Adrian R. Woolfitt[2]; Maria Ospina[2]; Michael J. Arrowood[3]; Govinda S. Visvesvara[3]; John R. Barr[2]; *[1]Battelle Memorial Institute & Centers for Disease Control & Prevention, Atlanta, GA; [2]CDC / NCEH, Atlanta, GA; [3]CDC / NCID, Atlanta, GA*

WPA 013 **Detection of Microbial Biomarkers Using a Micro-Fabricated Pyrolyzer Interfaced to a Quadrapole Ion Trap Mass Spectrometer**; Crystal D. Havey[1]; Franco Basile[1]; Curtis Mowry[2]; Kent J. Voorhees[1]; *[1]Colorado School of Mines, Golden, CO; [2]Sandia National Laboratories, Albuquerque, NM*

WPA 014 **Toward Understanding the Ionization of Biomarkers by Bio-Aerosol Mass Spectrometry**; Scott C. Russell[1]; Gregg Czerwieniec[1]; Dave Fergenson[2]; Herb Tobias[2]; Maurice Pitesky[2]; Joanne Horn[2]; Matthias Frank[2]; Paul Steele[2]; Keith Koffee[2]; Eric Gard[2]; Carlito B. Lebrilla[1]; *[1]University of California, Davis, Davis, CA; [2]Lawrence Livermore National Laboratory, Livermore, CA*

WPA 015 **A Universal, Rapid and Automated Method for Microbial Identification Using Py-MAB-TOF**; Simon Letarte[1]; Kelly Monastiriakos[1]; Pascal Martin[1]; Jon G Wilkes[2]; Michel J. Bertrand[3]; *[1]Dephy Technologies, Montreal, Canada; [2]University of Montreal, Montreal, Canada; [3]FDA, National Center for Toxicological Research, Jefferson, AR*

WPA 016 **On line MALDI of Bioaerosols**; Sushama Mishra; Shelley N Jackson; Kermit K Murray; *Louisiana State University, Baton Rouge, LA*

WPA 017 **Reagentless Real-Time Identification of Individual Microorganisms by Bioaerosol Mass Spectrometry**; David P. Fergenson[1]; Keith R. Coffee[1]; Maurice E. Pitesky[1]; Herbert J. Tobias[1]; Paul T. Steele[1]; Gregg A. Czerwieniec[2]; Scott C. Russell[2]; Carlito B. Lebrilla[2]; Joanne M. Horn[1]; Matthias Frank[1]; Eric E. Gard[1]; *[1]The Lawrence Livermore National Laboartory, Livermore, CA; [2]The University of California, Davis, CA*

WPA 018 **Rapid Characterization of Microorganism Mixtures From the Genus *Bacillus* by *in situ* Proteolytic Digestion and MALDI-TOFMS Analysis**; Bettina Warscheid; Catherine Fenselau; *University of Maryland, College Park, MD*

WPA 019 **Proteomic Strategies for the Identification of Spore-Specific Protein Biomarkers in *Bacillus***; Danielle N. Dickinson[1]; William Haskins[2]; David H. Powell[1]; James D. Winefordner[1]; Kasthuri Venkateswaran[3]; Myron T. LaDuc[3]; *[1]Department of Chemistry, University of Florida, Gainesville, FL; [2]McKnight Brain Institute, University of Florida, Gainesville, FL; [3]Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA*

WPA 020 **Identification of Bacterial Cell Biomarkers Using Bio-Aerosol Mass Spectrometry**; Gregg Czerwieniec[1]; Scott Russell[1]; Herbert Tobias[1]; David Fergenson[2]; Maurice Pitesky[2]; Joanne Horn[2]; Matthias Frank[2]; Paul Steele[2];

Keith Koffee[2]; Eric Gard[2]; Carlito Lebrilla[1]; [1]*University of California, Davis, CA;* [2]*Lawrence Livermore National Lab, Livermore, CA*

WPA 021 **Rapid Identification of *Bacillus* Spore Species via Tryptic Peptide Mapping on a Miniature MALDI TOF Mass Spectrometer**; Robert D English[1]; Bettina Warscheid[2]; Catherine Fenselau[2]; Robert J Cotter[1]; [1]*The Johns Hopkins University School of Medicine, Baltimore, MD;* [2]*University of Maryland, College Park, MD*

WPA 022 **Identification of Bacteria by Electrospray Ionization Mass Spectrometry**; Bo Zhang; Fumin Li; Dan Armstrong; R. S. Houk; *Ames Laboratory USDOE, Dept. of Chemistry, Iowa State University, Ames, IA*

WPA 023 **Use of Mass Spectrometry to Detect and Identify Francisella tularensis, a Potential Biological Weapon:**; Timothy D. Cummins[1]; Kevin Carrick[2]; David Loiselle[2]; Marshall Pope[2]; Christoph Borchers[2]; Edward J. Collins[1]; [1]*Dept. of Microbiology and Immunology, UNC-CH, Chapel Hill, NC;* [2]*Dept. of Biochemistry and Biophysics, UNC-CH, Chapel Hill, NC*

APCI AND LC-MS SAMPLE PREPARATION

WPB 024 **Selective Removal of PEG by Turbulent Flow Chromatography in Pharmaceutical Bioanalysis**; Tony M Edge[1]; Sveinn Briem[2]; Eivor Eklund[2]; [1]*Cohesive Technology, Milton Keynes, UK;* [2]*Astra Zeneca, Sodertajle, Sweden*

WPB 025 **Low Picogram Automated and Selective LC-MS/MS Bioanalytical Assay for Unconjugated Estrone, Equilin and 17-beta-Estradiol in Human Plasma**; Yves G. Leblanc[1]; Serge Bourg[1]; Christian Lemoyne[1]; Lynda Letarte[1]; Chris Sartwell[2]; Vinny Andaloro[2]; Holly Lusk[2]; Erica Carnes[2]; Charles Grandmaison[1]; [1]*MDS Pharma Services, Bioanalytical, Montreal, Canada;* [2]*MDS Pharma Services, Bioanalytical, Lincoln, NE*

WPB 026 **Direct Analysis of RH-1 and 5-Aza-2'-Deoxycytidine in Plasma using In-Line Protein Exclusion HPLC/MS/MS**; Gregory S Gorman; Lori Coward; Lara A Cook; Corenna Kerstner-Wood; *Southern Research Institute, Birmingham, AL*

WPB 027 **Determination of AZD3582, a New COX-Inhibiting Nitric Oxide Donator (CINOD), and Its Major Metabolite Naproxen in Plasma by Coupled Column LC/MS/MS.**; Cecilia Weistrand[1]; Maria Bertilsson[1]; Birgitta Pettersson[1]; Erika Skoglund[1]; Kerstin Lanbeck Vallen[1]; Margareta Bielenstein[1]; [1]*AstraZeneca R&D Södertälje, Södertälje, Sweden;* [2]*AstraZeneca R&D Sodertalje, Sodertalje, Sweden*

WPB 028 **A Sample Preparation Technique and LC/MS/MS Method for the Analysis of Therapeutic Levels of Acetaminophen Extracted From Human Plasma**; Elda Marsh; Kathrin Copley; Richard Hiles; *Amylin Pharmaceuticals, Inc., San Diego, CA*

WPB 029 **Determination of Atrasentan (Abbott-147627) in Human Plasma Using a Dual-Column LC-MS/MS Method for High Throughput**; Perry G. Wang; Raymond C. Wieboldt; Jack S. Wei; Min S. Chang; Tawakol A. El-Shourbagy; *Abbott Laboratories, Abbott Park, IL*

WPB 030 **Optimisation, Prediction and Control of Formation of Molecular Ion Species Versus Dimer in Three Modes of Atmospheric Pressure Ionisation**; Alan P. McKeown[1]; Melvin R. Euerby[1]; Helen Lomax[1]; Karine Redeuil[2]; [1]*AstraZeneca R&D Charnwood / Lund, Pharmaceutical and Analytical R&D, Loughborough, England;* [2]*Department of Pharmaceutical Sciences, University of Strathclyde, Glasgow, Scotland*

WPB 031 **An LC-MS/MS Method for the Determination of Clindamycin in Mouse Plasma Using Automated On-Line Turbulent Flow Extraction**; Laura Cojocaru; Ardeshir Khadang; Marc Moussallie; Carl Bates; *Huntingdon Life Sciences, Somerset, NJ*

WPB 032 **Sample Preparation of Human Serum Combined with Cleavable ICAT™ Reagents to Enhance Low Level Protein Analysis**; Lynn R. Zieske[1]; Sally U[1]; Subodh Nimkar[1]; Sylvia Yuen[1]; Brian Boucher[2]; [1]*Applied Biosystems, Foster City, CA;* [2]*Applied Biosystems, Framingham, MA*

WPB 033 **Quantitation of Linezolid (Zyvox™, PNU-100766) and Two Metabolites in Human Plasma by Step Gradient HPLC/MS/MS**; Nancy K. Hopkins[2]; Gail L. Jungbluth[2]; Richard A. Johnson[1]; Michael A. Glavanovich[1]; [1]*AvTech Laboratories, Kalamazoo, MI;* [2]*Pharmacia Corporation, Kalamazoo, MI*

WPB 034 **Determination of Caco-2 Permeability using a High-Throughput Parallel *in vitro* Assay with LC/MS Detection**; Ying Jiang[1]; Bo Liu[1]; Sammantha Sevidal[1]; Kerry D Nugent[2]; Caroline Lee[1]; Eric Milgram[1]; [1]*Pfizer, San Diego, CA;* [2]*Michrom BioResources, Auburn, CA*

WPB 035 **LC/MS Method for the Determination of Epricubicin in Human Plasma**; Daryl Murry[1]; Robert Classon[2]; [1]*Purdue University, Indianapolis, IN;* [2]*Shimadzu Scientific Instruments, Columbia, MD*

WPB 036 **LC/MS to Support Caco-2 Cell Culture Screening: Challenges Associated with Low Solubility Development Compounds**; Joelle M. Onorato[1]; Lillian S. Chou[2]; Gloria Kwei[1]; Henry Wu[1]; [1]*Merck, West Point, PA;* [2]*Rutgers College of Pharmacy, Piscataway, NJ*

WPB 037 **High Throughput and Rational Method Development of an Ultra-Sensitive and Ultrafast LC-MS/MS Method - Aanlysis of Bupivacaine in Human Plasma**; John (Jiongwei) Pan; Heiko Junga; Sun Hua; Xiangyu Jiang; Naidong Weng; *Covance Laboratories, Inc., Madison, WI*

WPB 038 **Quantitation of Acrylamide in Commercially Available Snack Food Products by LC/MS/MS**; Marian Twohig; Thierry, D. Mann; Nicholas, J. Ellor; *Waters MS Technical Center, Beverly, MA*

WPB 039 **Eliminating Ionization Suppression in Plasma Extracts**; Richard King; Elizabeth Mahan; *Merck & Co., Inc., West Point, PA*

WPB 040 **Quantitative Analysis of Dihydropyridines in Plasma and Tissue Using Turbulent-Flow Chromatography/Tandem Mass Spectrometry**; Christine M. Kosara; Voon Ong; Kevin Cook; William Brubaker; *Memory Pharmaceuticals, Montvale, NJ*

WPB 041 **Correlation Between Peripheral Blood Mononuclear Cells Versus Plasma Concentrations of Total Tenofovir Using Mass Spectrometric Detection**; John Chapdelaine[1]; Brian Kearney[2]; Art Switchenko[1]; Kenneth Gee[1]; Francis Beaudry[5]; [1]*MDS Pharma Services, St-Laurent, Canada;* [2]*Gilead Sciences, Foster City, CA*

WPB 042 **Comparing ESI and APCI for the LC/MS/MS Assay of Acrylamide**; Kevin J McHale; Witold Winnik; Gary Paul; *Thermo Finnigan, Somerset, NJ*

WPB 043 **Determination of Flavanoids by HPLC-ESI/MS/MS in Human Plasma**; Hong Deng; Milton Furtado; Francis Beaudry; *MDS Pharma Services, Montreal, Canada*

WPB 044 **An LC-MS/MS Method for the Simultaneous Determination of Sulfacetamide and Sulfanilamide in Human Plasma**; Laura Cojocaru; Ardeshir Khadang; Marc Moussallie; Cyrus Zarabadipour; *Huntingdon Life Sciences, East Millstone, NJ*

WPB 045 **Ion Trap LC/MS/MS and Chemical Derivatization for Metabolic Profiling of GM Foodstuffs**; Thomas Groeger[1]; Anna M. Przyborowska[3]; Daniel Waterman[2]; Peter M. Bramley[2]; Paul D. Fraser[2]; Marianne Tuechler[1]; Raj K.P. Patel[1]; John M. Halket[1]; [1]*Specialist Bioanalytical*

Services, Royal Holloway, Univ. London, Egham, UK; [2]Biological Sciences, Royal Holloway, Univ. London, Egham, UK; [3]Drug Control Centre, King's College, London, UK

WPB 046 **Expanded Use of Microtainers Incresases the Efficiency of Pharmacokinetic Sample Procurement, Preparation and Analysis by LC/MS/MS**; Josephine S Villa; Robert T Cass; *Theravance, Inc, South San Francisco, CA*

BIOPOLYMER INTERACTIONS

WPC 047 **Noncovalent Interactions in ESI-MS: A method for Interpreting Broad Overlapping Peaks**; Silke Wendt; Gregor McCombie; Renato Zenobi; *Laboratry for Organic Chemistry, ETH Zurich, Zurich, Switzerland*

WPC 048 **Probing Self-Association Properties of Various Insulins by H/D Exchange and ESI-MS**; Raghu K. Chitta; Don L. Rempel; Michael L. Gross; *Washington University in Saint Louis, Saint Louis, MO*

WPC 049 **Development and Validation of an Ultra-High Throughput Affinity Mass Spectrometry Based Assay for Screening Protein Receptors**; Paul D. Schnier; Gregory Woo; David Semin; Janet Cheetham; *Amgen, Thousand Oaks, CA*

WPC 050 **Collisional Cooling of Large Ions in Electrospray Mass Spectrometry**; Bruce A. Thomson; Igor V. Chernushevich; *MDS Sciex, Concord, Canada*

WPC 051 **Developing a MALDI Mass Spectrometry Approach for Probing Ribosomal Assembly and Interactions**; Moo-Jin Suh; Patrick A Limbach; *University of Cincinnati, Cincinnati, OH*

WPC 052 **Detection of New Adducts in Cisplatin and Metallothionein Reactions: Nanospray Tandem Mass Spectrometry and HPLC/ICP-MS Studies**; Rupasri Mandal; Guifeng Jiang; Xing-Fang Li; *University of Alberta, Edmonton, Canada*

WPC 053 **Structural Determination of a 13-Subunit Yeast Cyclosome using *in vitro* and *in vivo* Biochemistry Coupled with Mass Spectrometry.**; Matthew P. Torres; Malena M. Taylor; Mark C. Hall; Nikolay Dokholyan; Christoph H. Borchers; *University of North Carolina, Chapel Hill, NC*

WPC 054 **The Accuracy and Precision of a New MALDI- and H/D Exchange-Based Technique for Measuring the Thermodynamic Properties of Protein-Ligand Complexes in Solution**; Michael C. Fitzgerald; Kendall D. Powell; Liyuan Ma; Michael Z. Wang; Jagat Shetty; Suzy Dai; *Duke University, Durham, NC*

WPC 055 **Characterization of Carceplexes Using APCI, ESI and MALDI Mass Spectrometry**; Cindy Chiao-Yuan Lee; Pamela Miller; Lufiani Madilao; Marshall Lapawa; Yun Ling; *Department of Chemistry, University of British Columbia, Vancouver, Canada*

WPC 056 **Mapping the Binding Interface Between Urokinase Plasminogen Activator (uPA) and Its Cellular Receptor (uPAR) by ESI-MS and Amide Hydrogen/Deuterium Exchange**; Thomas J.D. Jorgensen[1]; Michael Ploug[2]; Peter Roepstorff[1]; *[1]University of Southern Denmark/Dept. of Biochemistry and Mol.Biology, Odense, Denmark; [2]Rigshospitalet/The Finsen Laboratory, Copenhagen, Denmark*

WPC 057 **Development of an Interaction Difference Mapping (IDM) Methodology for Assessing Myocardial Infarction Severity using SEDLI-TOF Mass Spectrometry**; Lee O Lomas[1]; Jane Ding[1]; Ralf Labugger[2]; Zheng Wang[1]; Jennifer Van Eyk[2]; *[1]Ciphergen Biosystems Inc., Fremont, CA, USA; [2]Cardiomics Inc., Queen's University, Kingston, Canada*

WPC 058 **Structure, Conformation and Dynamics of Nucleic Acid Binding Proteins Using Multiple Mass Spectrometric Techniques**; R. Benjamin Jones[1]; Kari B. Green-Church[1]; Hari B. Kamadurai[1]; William P. Boomershine[2]; Craig A. McElroy[2]; Mark P. Foster[1]; *[1]The Ohio State University Mass Spectrometry and Proteomics Facility, Columbus, OH*

WPC 059 **Tandem Mass Spectrometry of Molecular Machines**; Leopold L. Ilag[1]; Lars Westblade[2]; Annie Kolb[3]; Steve Busby[2]; Andrew Carter[4]; Venki Ramakrishnan[4]; Carol V. Robinson[1]; *[1]University of Cambridge, Cambridge, UK; [2]University of Birmingham, Birmingham, U.K.; [3]Pasteur Institute, Paris, France; [4]MRC-LMB, Cambridge, UK*

WPC 060 **Unraveling Ffh-FtsY Complex Interface Using Chemical Cross-linking and Mass Spectrometry**; Feixia Chu[1]; Shu-Ou Shan[2]; Peter Walter[2]; Alma L. Burlingame[1]; *[1]Mass Spectrometry Facility, University of California, San Francisco, CA; [2]Department of Biochemistry, University of California, San Francisco, CA*

WPC 061 **Automated Nano-electrospray Mass Spectrometry From a Chip for Protein-ligand Screening by Noncovalent Interaction Applied to Human H-FABP and A-FABP.**; Kurt Benkestock[1]; Collen K Van Pelt[4]; Thomas Åkerud[3]; Alistair Sterling[5]; Per-Olof Edlund[1]; Johan Roeraade[2]; *[1]Biovitrum AB, Stockholm, Sweden; [2]Royal Institute of Technology, Stockholm, Sweden; [3]University of Lund, Lund, Sweden; [4]Advion Biosciences Inc, Ithaca, NY; [5]Advion Biosciences Limited, Norwich, UK*

WPC 062 **Detection of Non-Covalent Complexes Between Farnesyl Protein Transferase (FPT) and Its Inhibitors by Electrospray Ionization Mass Spectrometry**; Urooj A. Mirza; Chen Guodong; Birendra N. Pramanik; Ronald J. Doll; Viyyoor M. Girijavallabhan; William T. Windsor; Hung V. Lee; *Schering-Plough Research Institute, Kenilworth, NJ*

COMPUTER APPLICATIONS

WPD 063 **Development of an Excel-Based Macro for Automatic Data Processing to Support High-Throughput Screening**; Eliza N. Fung; Inhou Chu; Amin Nomeir; *Schering-Plough Research Institute, Kenilworth, NJ*

WPD 064 **New MS/MS Spectra Database Concept With a Sample Library**; Robert Mistrik[1]; Alexej Nikiforov[2]; Ernst Pittenauer[3]; Milos Suchy[1]; Juraj Lutisan[1]; *[1]HighChem, Ltd., Bratislava, Slovakia; [2]Institute of Organic Chemistry University of Vienna, Vienna, Austria; [3]Federal Office & Research Center for Agriculture, Vienna, Austria*

WPD 065 **Web Based Direct Access LC/MS and Data Review to Accelerate Drug Development**; John Warrander[1]; Simon Ashton[1]; Kiyoshi Shimizu[2]; Norio Mukai[2]; Yuji Katsuyama[2]; Junko Iida[2]; *[1]Shimadzu Corporation, Manchester, UK; [2]Shimadzu Corporation, Kyoto, Japan*

WPD 066 **PRIME: Information Management Environment For High-Throughput Proteomics Laboratories**; David H. Lentz; Hsueh-Ling Chang; Luciana Pelosi-Kilby; Angela K. Walker; John R. Strahler; Peter J. Ulintz; Panagiotis G. Papoulias; Philip C. Andrews; *University of Michigan, Ann Arbor, MI*

WPD 067 **DBParser: A Perl Program for Proteome Data Analysis**; Vijay Dondetti[1]; Rebecca Dezube[2]; Xiaoyu Yang[1]; Dawn M. Maynard[1]; Sanford P. Markey[1]; Lewis Geer[3]; Jonathan Epstein[2]; Jeffrey A. Kowalak[1]; *[1]National Institute of Mental Health, Bethesda, MD; [2]National Institute of Child Health and Human Development, Bethesda, MD; [3]National Center for Biotechnology Information, Bethesda, MD*

WPD 068 **Hunting Small Yeast ORFs Using Virtual 2D Gels and MALDI TOF-TOF**; Gary A Rymar; Angela K Walker; Philip C Andrews; *University of Michigan, Ann Arbor, MI*

WPD 069 **Automation in Data Acquisition, Interpretation, and Reporting for High Throughput LC/MS/PDA/ELSD**; Baiwei Lin; Min Wan; Min Wan; Min Wan; *Berlex Biosciences, Richmond, CA*

WPD 070 **PeptideProphet and ProteinProphet: Software for Automated Identification of Proteins by Tandem Mass Spectrometry**; Andrew Keller; Alexey I. Nesvizhskii; Robert Hubley; Jimmy Eng; Ruedi Aebersold; *Institute for Systems Biology, Seattle, WA*

WPD 071 **Statistical Approach for Prefiltering of Raw MS/MS Spectra**; Ilan Vidavsky; Michael L. Gross; *Washington University, St. Louis, MO*

WPD 072 **A Comparative Study of Peptide Sequencing Software Tools for MS/MS**; Chengzhi Liang[1]; Jeffrey C Smith[2]; Christopher Hendrie[1]; Ming Li[1]; K. W. Michael Siu[2]; *[1]Bioinformatics Solutions Inc., Waterloo, Canada; [2]Centre for Research in Mass Spectrometry, York University, Toronto, Canada*

WPD 073 **Development and Evaluation of LC/Ion Trap MS^n Mass Spectral Libraries**; Robert D. Voyksner; Jennifer A. Townsend; *LCMS Limited, Raleigh, NC*

WPD 074 **A Remotely Interactive MALDI-MS System with Automated Internet Enabled Features**; Min Yang; Micheal Pawliszyn; Gary Impey; Ron Bonner; *Applied Biosystems/MDS Sciex Instruments, Concord, Canada*

WPD 075 **Using Genetic Algorithms for the Construction of *de novo* Peptide Sequences.**; Alejandro Heredia-Langner; William R. Cannon; Kenneth D. Jarman; Kristin H. Jarman; *Pacific Northwest National Laboratory, Richland, WA*

DRUG METABOLISM: QUANTITATION

WPE 076 **Column-Switching Analysis for High-Throughput LC/MS/MS Using Prospekt II : Direct Plasma Injection Versus Sample Pre-Treatment Strategies**; Emmanuel Bourgogne; Chantal Grivet; Gerard Hopfgartner; *University of Geneva, School of Pharmacy, Geneva, Switzerland*

WPE 077 **Development and Evaluation of a Solid Phase Microextraction Probe for *in vivo* Pharmacokinetic Studies**; Heather L Lord[1]; Markus Walles[1]; Russell P Grant[2]; Bev Incledon[2]; Brian Fahie[3]; Janusz B Pawliszyn[1]; *[1]University of Waterloo, Waterloo, Canada; [2]Eli Lilly Canada Inc., Scarborough, Canada; [3]Eli Lilly Corporate Center, Indianapolis, IN*

WPE 078 **Evaluation of the Analytical Performance Characteristics of a High-Field Asymmetric Waveform Ion Mobility Spectrometer (FAIMS) Coupled to a Tandem Quadrupole Mass Spectrometer**; Themis Flarakos[1]; Ari Gritsas[1]; Edward J. Daly[1]; Donald Chun[1]; Mark L. J. Reimer[1]; Tim Hoffman[2]; Tom Covey[2]; David A. Barnett[3]; Randy W. Purves[3]; *[1]MDS Pharma Services, Montreal, Canada; [2]MDS Sciex, Toronto, Canada; [3]Ionalytics, Ottawa, Canada*

WPE 079 **Drug Metabolism Studies Utilizing a Nanosplitting Device with Multiple On-line Mass Spectrometric, Radiomatic and Diode-array Detection**; Christine L. Andrews; Paul Vouros; *Barnett Institute, Northeastern University, Boston, MA*

WPE 080 **Routine Micro-Sampling for LC-MS/MS Quantitation in Drug Discovery**; Elizabeth A. Mahan; Carmen Fernandez-Metzler; Anne Taylor; *Department of Drug Metabolism, Merck Research Laboratories, West Point, PA*

WPE 081 **Analysis of Fetal Rat Plasma, Tissue and Amniotic fluid by LC-MS/MS and Whole Body Autoradiography in Early Drug Discovery**; Sam Wainhaus; Kimberly Dunn-Meynell; Ian Knemeyer; Roger Casale; Mark Wirth; Kimberly Treinen; Raymond Liu; *Schering Plough Research Institute, Kenilworth, NJ*

WPE 082 **Development of an LC/MS/MS Assay for the Quantification of Aplidin®, a Novel Marine-derived Antineoplastic, in Human Plasma**; Jianming Yin[1]; Pablo Aviles[2]; William Lee[1]; Carl Ly[1]; Glynn Faircloth[1]; *[1]PharmaMar USA, Inc., Cambridge, MA; [2]PharmaMar S.A., Colmenar Viejo, Spain*

WPE 083 **Quantitation of Sumatriptan in Human Plasma via HPLC with MS/MS Detection**; Floyd Vest; Christopher Huntington; Michael Waldron; Bruce Hidy; *PPD Development, Richmond, VA*

WPE 084 **Identification and Rejection of Calibration Standard Curve Outliers During Quantification of Xenobiotics Using LC/MS/MS**; Qimin Li[1]; Kirk D. Knotts[1]; Kenneth J. Ruterbories[1]; Darlene K. Satonin[1]; Thomas A. Walker[2]; Enaksha R. Wickremsinhe[1]; *[1]Eli Lilly and Company, Indianapolis, IN; [2]Eli Lilly Canada, Danforth, Canada*

WPE 085 **Quantitation of Total Phenylephrine in Human Plasma via HPLC with MS/MS Detection**; Zong-Ping Zhang; James Waltrip; Sandra Miller; Jason DiNatale; Bruce Hidy; *PPD Development, Richmond, VA*

WPE 086 **A Combined GC/MS/MS and LC/MS/MS Bioanalytical Method for the Quantitation of Estradiol, Estrone, Estrone Sulfate, Testosterone and Androstenedione**; Bhaskar Sundaram; James A. Settlage; Susan K. Ohorodnik; Paul A. Taylor; *Taylor Technology, Inc., Princeton, NJ*

WPE 087 **Application of APPI Interface for High Throughput Quantitation Bioanalysis of Pharmaceutical Compounds**; Jim Shen; Hui Lin; Patrick Rudewicz; *Schering-Plough Research Institute, Kenilworth, NJ*

WPE 088 **Validation of Critical Factors in Tandem Ion Trap MS/MS Method for Screening of Anabolic Agents**; Juan Francisco Sanchez Bruzon; *Antidoping Laboratory, Havana City, Cuba*

WPE 089 **Liquid Chromatography / Tandem Mass Spectrometry for the Determination of Metoclopramide in Maternal Plasma, Amniotic Fluid, Coelomic Fluid and Fetal Tissue**; Perpetua E. Tan; April S.Y. Wong; Matthew T.V. Chan; Tony Gin; *Dept. of Anaesthesia and ICU, Chinese University of Hong Kong, Shatin, Hong Kong*

WPE 090 **A DPC 083 LC/MS Method in a CSF/HSA Matrix Utilizing In-Source CID on a Single Quadrupole Mass Spectrometer**; Jinnan Cai; P.Jane Gale; Steve Unger; *Bristol-Myers Squibb, Princeton, NJ*

WPE 091 **LC/MS/MS Bioanalysis of Basic Analytes Using Normal Phase Columns and Aqueous/Organic Mobile Phases - Eliminating Evaporation and Reconstitution Steps for Liquid/Liquid Extractions**; Kenneth J Ruterbories; Andre S Negahban; *Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN*

WPE 092 **Fully Automated High-Throughput LC/MS/MS Screening for Cytochrome P450 Inhibition with a Custom Setup/Processing Software**; Petia Shipkova; Robert Langish; Jonathan Josephs; Tatyana Zvyaga; Mary Ellen Salyan; Lee McLaughlin; Cheryl Klakouski; Jay Knipe; Sanna Lehtinen-Oboma; *Bristol-Myers Squibb, Princeton, NJ*

WPE 093 **Study of the Interconversion Kinetics and Equilibrium of the Lactone and Carboxylate Forms of SN38 by HPLC-MS/MS**; Lana Rodenhiser[1]; Milton Furtado[1]; Susan Paulson[2]; Stephen Wanaski[2]; Francis Beaudry[1]; *[1]MDS Pharma Services, Montreal, Québec, Canada; [2]Neopharm, Lake Forest, IL*

WPE 094 **Ultra Sensitive Assay to Measure Rapamycin in Whole Blood and Paclitaxel in Swine Plasma**; Jakal M. Amin; Luke Utley; Mark Netsch; Wendy Couture; Sue Netsch; *Charles River, Worcester, MA*

WPE 095 **Simultaneous Determination of Gemcitabine and its Deaminated Metabolite in Animal Plasma by Normal Phase LC-MS/MS Analysis**; Jun Shen; Xue Ge; Taegen Clary; Ying Cheng; Cynthia Sun; Tom Kirkland; Babu Subramanyam; Jih-Lie Tseng; *Berlex Biosciences, Richmond, CA*

WPE 096 **LC- MS/MS - A Highly Sensitive and Selective Method for the Determination of Hyperforin in Mice Brain**; Jan-Henning Keller[1]; Mona Tawab[1]; Gunter Eckert[3]; Dietrich A. Volmer[4]; Walter E. Mueller[3]; Theodor Dingermann[2]; Manfred Schubert- Zsilavecz[1]; Michael Karas[1]; *[1]Inst. of Pharmaceutical Chemistry/ J.W.Goethe- University, Frankfurt, Germany; [2]Inst. of Pharmaceutical Biology/ J.W. Goethe- University, Frankfurt, Germany; [3]Inst. of Pharmacology/ J.W. Goethe- University, Frankfurt, Germany; [4]Inst. for Marine Biosciences/ National Research Council, Halifax, Canada*

WPE 097 **Analysis of Cisplatin and its Hydrated Complexes by ESI-MS and High-Field Asymmetric Waveform Ion Mobility Spectrometry**; Meng Cui; Luyi Ding; Zoltan Mester; *National Research Council of Canada, Ottawa, Canada*

WPE 098 **Monitoring the Ammonium Adduct Ion Provides the LC/MS/MS Sensitivity Necessary to Quantify Troglitazone in EDTA Rat Plasma**; Julie D McCulloch; Andre S Negahban; Kenneth J Ruterbories; *Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN*

WPE 099 **Application of a TSQ Quantum Ultra Triple Quadrupole Mass Spectrometer for the Quantification of Novel Anti-HIV Agents in Peripheral Blood Mononuclear Cell (PBMCs)**; Cheng Y Yang[1]; Yujin Wang[1]; Maurizio Splendore[2]; Rohan A. Thakur[2]; *[1]Gilead Sciences, Foster City, CA; [2]ThermoFinnigan, San Jose, CA*

WPE 100 **Quantitation of Plasma Estrogen Metabolites by LC/Electron Capture Atmospheric Pressure Chemical Ionization/Tandem Mass Spectrometry After Oral Estradiol Administration**; Ye Tian; Seon Hwa Lee; Alejandro Gutierrez; Santosh Tilve; Peter O'Dwyer; Ian A. Blair; *University of Pennsylvania, Philadelphia, PA*

WPE 101 **Identification and Quantitation of a Phase II Diabetes Drug, CLX-0921 and Metabolites in Monkey Bile**; Purvi Jejurkar; Coleman Gross; Partha Neogi; Lesley Pickford; Jan Rydzewski; *Calyx Therapeutics, Inc, Hayward, CA*

WPE 102 **Cohesive Online Mass Spectrometric Determination of Clindamycin in Multiple Biological Matrices**; Adlai E. Niggebrugge; Lisa A. Ford; David S. Parker; Glenn D. Tabolt; Michael Zhou; Anthony S. Chilton; *Cardinal Health, RTP, NC*

WPE 103 **High-Throughput Tissue Sample Bioanalysis Using Automation Coupled with On-Line High-Flow Column Switching LC/MS/MS**; Hang Zeng; Joanne Nguyen; Jing-Tao Wu; *Millennium Pharmaceuticals, Inc, Cambridge, MA*

WPE 104 **Urine Drug Testing for Multiple Opioids, Cocaine, and Metabolites by Direct Injection LC-APCI-MS/MS**; Riet Dams[2]; Constance M. Murphy[1]; Willy E. Lambert[2]; Marilyn A. Huestis[1]; *[1]Chemistry and Drug Metabolism, National Institute on Drug Abuse, Baltimore, MD; [2]Laboratory of Toxicology, Ghent University, Ghent, Belgium*

WPE 105 **Direct Injection of Plasma Samples Using a Single RAM Column and LC-MS/MS Detection for Quantitative Drug Analysis**; Robert Papp; Wayne M. Mullett; Elizabeth Kwong; *Pharmaceutical Research and Development, Merck Frosst Canada & Co., Montreal, Canada*

WPE 106 **An LC-MS/MS Method for the Determination of Tipifarnib, A Novel Farnesyltransferase Inhibitor, in Human Plasma.**; Tom Verhaeghe; Ronald de Vries; Jan de Jong; *Johnson & Johnson Pharmaceutical Research and Development, Beerse, Belgium*

WPE 107 **Semi-Automated Quantification of Ivermectin in Rat Plasma Using Protein Precipitation and Filtration with Liquid Chromatography-Turbo Ion Spray Tandem Mass Spectrometry**; Tony Pereira; Steve Chang; Ray Bakhtiar; Shuet-Hing L Chiu; *Merck Research Laboratories, Rahway, NJ*

WPE 108 **Quantitation of Drugs and Vitamins using PhotoSpray™ Ionization on a QqTOF Instrument**; Jeffrey D. Miller; James A. Ferguson; *Applied Biosystems, Framingham, MA*

WPE 109 **A Rapid and Ultrasensitive LC-MS/MS Method for the Quantitation of Capsaicin in Human Plasma Using Monolithic Reversed Phase Chromatography**; Erica Carnes; Holly Lusk; Daryl Grafelman; Chris Sartwell; Vinny Andalaro; Jean Lee; Patrick Lin; *MDS Pharma Services, Lincoln, NE*

WPE 110 **Development and Validation of an LC-MS/MS Method for Quantification of Caffeine and Selected Metabolites for NAT2 Phenotype Determination**; Garnet McRae[1]; Mihran G. Boudakian[2]; Johanne Bouchard[1]; Keith Goodman[3]; Michael D. Harvey[2]; *[1]CTBR, Senneville, Canada; [2]Theranostics – A Subsidiary of Xanthus Life Sciences, Montreal, Canada; [3]Xanthus Life Sciences, Inc., Cambridge, MA*

WPE 111 **The Determination of Sulfasalazine and its Metabolites in Human Plasma by High Performance Liquid Chromatography Mass Spectrometry**; Vy Ha; Anita Towers; Nicola Hughes; *Biovail Contract Research, Toronto, Canada*

WPE 112 **A Simple and Sensitive LC/MS/MS Method for Paclitaxel Quantification in Mouse Plasma and Tissues to Support Pharmacokinetics/Tissue Distribution Studies of a Liposome Based Formulation of Paclitaxel (LEP-ETU)**; Sumsullah Khan; Wei Guo; Jenifer Johnson; Ateeq Ahmad; Imran Ahmad; *NeoPharm Inc., Waukegan, IL*

WPE 113 **Determination of R216073 in Human Plasma Using LC-MS/MS to Support Pharmacokinetic Studies in Healthy Volunteers**; Johan van Zijtveld; Marc De Meulder; Petra Vinck; Annemie Noels; Ilse Van Lommel; Liesbeth Vereyken; Philip Timmerman; *Johnson & Johnson PRDBE, Beerse, Belgium*

ENVIRONMENTAL

WPF 114 **Selected Ion Chemical Ionization (SICI) using Glow Discharge with a Quadrupole Ion Trap**; Christine N Dalton[1]; Gary L Glish[1]; *[1]University of North Carolina, Chapel Hill, NC; [2]University of North Carolina, Chapel Hill, NC*

WPF 115 **Analysis of Atmospheric Aerosol Particles With the Single Particle Analysis and Sizing System (SPASS)**; Nicole Erdmann[1]; Paolo Cavalli[1]; Carsten Gräning[1]; Nicolo Omenetto[2]; Frank Raes[1]; Rita Van Dingenen[1]; *[1]European Commission JRC Institute for Environment and Sustainability, Ispra (VA), Italy; [2]University of Florida, Dept. of Chemistry, Gainesville, FL*

WPF 116 **Detection of Nitro-substituted Polynuclear Aromatic Hydrocarbons and their Derivatives using Electron Capture Negative Ion Methods**; Jennifer Y Francis; Robert D Guy; Lou Ramaley; *Dalhousie University, Halifax, Canada*

WPF 117 **Real -Time Monitoring of Trichloroethylene using a Mobile TAGA LPCI/MS/MS**; Nicholas S. Karellas; Dan B. Orr; Rebecca K. Milburn; Gary B. DeBrou; Qing-Feng Chen; *Ontario Ministry of the Environment, Toronto, Canada*

WPF 118 **The Use of Gas Chromatography/Mass Spectrometry for Determination of Hydraulic Fluid Contamination in Lubricating Oil on The Space Shuttle**; Timothy P Griffin; *National Aeronautic and Space Administration (NASA), Kennedy Space Center, FL*

WPF 119 **Diesel Engine Emissions as a Function of Engine Operating Conditions, a Single Particle Mass Spectrometry Study**; Deborah S. Gross[1]; Alexandra M. Schmitt[1]; Amy M. Silverberg[1]; James J. Schauer[2]; David E. Foster[2]; Martin M. Shaeffer[2]; Chol-Bum Kweon[3]; Shusuke Okada[4]; *[1]Carleton College, Northfield, MN; [2]University of Wisconsin, Madison, WI; [3]Gas Technology Institute, Des Plains, IL; [4]Yanmar Company Ltd., Japan*

WPF 120 **Qualitative and Quantitative Analysis of Organic Compounds in Particles Using Electron-Impact Mass Spectrometry**; Philip J. Silva; *Utah State University, Logan, UT*

WPF 121 **The Identification of Nitropolycyclic Aromatic Hydrocarbons in Mainstream Tobacco Smoke Using Electron Monochromator Mass Spectrometry**; A. John Dane[1]; Kent J. Voorhees[1]; Robert B. Cody[2]; *[1]Colorado School of Mines, Golden, CO; [2]JEOL USA, Inc., Peabody, MA*

WPF 122 **Real-Time Analysis of Trace Combustion Gases from a Well-Stirred Reactor Using Tandem Mass Spectrometry and Selected Ion Storage**; Richard F. Reich[1]; Scott D. Stouffer[2]; Howard T. Mayfield[3]; *[1]Air Force Research Laboratory, Wright-Patterson AFB, OH; [2]University of Dayton Research Institute, Dayton, OH; [3]Air Force Research Laboratory, Tyndall AFB, FL*

WPF 123 **Assessment Of Tobacco-Specific Nitrosamines In Bidi Cigarette Smoke Using Isotope Dilution/Liquid Chromatography/Electrospray Ionization Tandem Mass Spectrometry,** Weijia Wu; David Ashley; Clifford Watson; *Centers for Disease Control and Prevention, Atlanta, GA*

WPF 124 **Aerospace and Environmental Applications of Small Mass Spectrometer Systems**; C Richard Arkin[1]; Timothy P. Griffin[2]; Charles H. Curley[1]; David P. Floyd[1]; Guy R. Naylor[1]; Frederick W. Adams[2]; William D. Haskell[1]; Duke W. Follistein[2]; *[1]Dynacs Inc, Kennedy Space Center, FL; [2]NASA, Kennedy Space Center, FL*

WPF 125 **A Unique and Sensitive Ionization Method for Nitrated Polycyclic Aromatic Hydrocarbons using Negative Ion APCI LC/MS**; Jerry Zweigenbaum; Michael Woodman; *Agilent Technologies, Inc., Wilmington, DE*

WPF 126 **A Nano-LC-MS Electron Ionization Approach for Environmental Analysis**; Pierangela Palma; Achille Cappiello; Giorgio Famiglini; Antonella Siviero; Filippo Mangani; *Istituto di Scienze Chimiche Università di Urbino, Urbino, Italy*

WPF 127 **Field and Laboratory Test of a Miniature Double Focusing Mass Spectrometer Sensor for Landfills Gas Management**; Enrico Davoli; Luigi Cappellini; Roberto Fanelli; *Mario Negri Pharmacological Research Institute, Milano, Italy*

WPF 128 **Determination of Oxy-PAHs in Airborne Particulate Matter Using Liquid Chromatography Tandem Mass Spectrometry Coupled with Dual Probes of Electrospray and Atmospheric Pressure Chemical Ionization**; Xinghua Fan[1]; Nathalie Sauret-Szczepanski[2]; Scott A. Mabury[1]; Douglas A. Lane[2]; Jeffrey R. Brook[2]; *[1]University of Toronto, Toronto, Canada; [2]MSC of Environment Canada, Toronto, Canada*

WPF 129 **Studies on Organic Aerosols From the α-Pinene Ozonolysis by Ion Trap- and Fourier-Transform-Mass Spectrometry**; Wolfgang Schrader[1]; Bettina Warscheid[2]; Thorsten Hoffmann[2]; *[1]Max-Planck-Intitut für Kohlenforschung, Mülheim/Ruhr, Germany; [2]Institut für Spektrochemie und angewandte Spektroskopie, Dortmund, Germany*

WPF 130 **Workplace Monitoring of Isocyanates Using Ion Trap LC/MS/MS**; Erik Vangronsveld[1]; Friedrich Mandel[2]; *[1]Huntsman Polyurethanes, Everberg, Belgium; [2]Agilent Technologies, Waldbronn, Germany*

HIGH THROUGHPUT ROBOTICS

WPG 131 **Application of Precision 2000 in Rapid Rat Pharmacokinetic Screen: Automated Standard and Sample Preparation**; Hong Mei; Cymbelene Nardo; Ganfeng Wang; Yunsheng Hsieh; *Schering Plough Research Institute, Kenilworth, NJ*

WPG 132 **High-throughput 36 Second LC/MS/MS Analysis of Plasma Samples Using the New SPExpress System**; Bradford Commons[1]; Russell House[3]; Sanjay Patil[2]; Robert Pranis[2]; Miryam Kadknodayan[1]; *[1]Genentech, Inc, South San Francisco, CA; [2]3M Company, St. Paul, MN; [3]TomTec, Hamden, CT*

WPG 133 **High Capacity Analysis of Digoxin by Cohesive Turbulent Flow Mass Spectrometry**; Adlai E. Niggebrugge; Lisa A. Ford; Glenn D. Tabolt; Michael Zhou; Anthony S. Chilton; *Cardinal Health, RTP, NC*

WPG 134 **High Throughput Purification: Making Purification the Rate-Limiting Step**; John J. Isbell[1]; Yingyao Zhou[1]; Brad Backes[1]; Mark Weslak[1]; Matthew Rynd[1]; Jim Chang[1]; Shumei Jiang[1]; Jared Ek[1]; Andrew Brailsford[2]; Darcy Shave[2]; *[1]Genomics Institute of the Novartis Research Foundation (GNF), San Diego, CA; [2]Waters Corporation, Milford, MA*

WPG 135 **Interfacing Capillary/Nano LC with MALDI/MS for High-Throughput Proteomics**; Mark van Gils[2]; Remco van Soest[2]; Dale Patterson[3]; Remco Swart[1]; Jean-Pierre Chervet[1]; *[1]LC Packings - A Dionex Company, Amsterdam, The Netherlands; [2]LC Packings (USA) - A Dionex Company, San Francisco, CA, USA; [3]Applied Biosystems, Framingham, MA*

WPG 136 **LC Plumbing Strategies for Reducing Carryover in LC/MS/MS Methods**; Theodore Brus[1]; Brian D. Beato[1]; Saber H. Maleki[2]; *[1]Covance, Indianapolis, IN; [2]Covance, Biolink, Indianapolis, IN; [3]Covance, Madison, WI*

WPG 137 **Solutions for Different Challenges in High Throughput LC/MS Analysis**; Stefan Schuette; Angelika Gratzfeld - Huesgen; Mark Stahl; *Agilent Technologies, Waldbronn, Germany*

WPG 138 **Automation of the In-Gel Digestion Process Using a Tecan Genesis™ RSP 150 Workstation**; Marcy Engelstein[1]; Anja Dedeo[1]; John McCool[2]; Libby Kellard[1]; *[1]Millipore Corporation, Danvers, MA; [2]Tecan US, Research Triangle Park, NC*

WPG 139 **Direct Plasma Analysis Using On-Line Extraction. A Simple LC/MS/MS Method Using High Sample Throughput For Early Discovery and Development.**; Mirva Boothe; Scott Womble; *Roche Palo Alto, Palo Alto, CA*

INSTRUMENTATION: MASS ANALYZERS (QUADRUPOLES & TRAPS)

WPH 140 **Signal Processing Approaches in the Miniature Cylindrical Ion Trap Mass Spectrometer**; Jack E. Fulton[3]; M. Todd Griffin[3]; Leah S. Riter[1]; Rong Gao[2]; Lefteri H. Tsoukalas[2]; R. Graham Cooks[1]; *[1]Department of*

Chemistry, Purdue University, Lafayette, IN; [2]School of Nuclear Engineering, Purdue University, Lafayette, IN; [3]Naval Surface Warfare Center, Crane Division, Crane, IN

WPH 141 **High Resolution Modeling of the Entrance and Exit Apertures in a Quadrupole Ion Trap Using SIMION 7.0.**; Christopher K. Hilton; Richard A. Yost; *University of Florida, Gainesville, FL*

WPH 142 **Comparison of the Selectivity of Deconvolution Software and Quadrupole Ion Trap MS/MS and their Limitations in Sample Matrix**; Diana Baker[1]; Ghislain Gerard[2]; Gail Harkey[3]; Jane Klassen[4]; Jane Klassen[4]; *[1]ThermoElectron, Austin, TX; [2]ThermoElectron, West Palm Beach, FL; [3]Florida Department of Agriculture, Tallahassee, FL; [4]ThermoElectron, Schaumburg, IL; [5]National Institute of Standards and Technology, Gaithersburg, MD*

WPH 143

WPH 144 **Dynamics of a Single Ion Packet Transport in the RF-Only Collisional Quadrupole of the MALDI-Linear Trap Mass Spectrometer**; Viatcheslav V. Kovtoun; *ThermoFinnigan, San Jose, CA*

WPH 145 **Overcoming SRM Blindness with the Linear Ion Trap**; Richard W Gundersdorf; Carmen L Fernandez-Metzler; Rick C King; *Merck & Co. Inc., West Point, PA*

WPH 146 **A Pulsed-Down Cavity for Efficient Low Energy Extraction of Ions Injected into a Very Large Paul Trap at High Energy**; Abdol Mohammad Ghalambor Dezfuli[1]; Robert B. Moore[2]; *[1]Research Institute of Applied sciences(ACECR), Tehran, Iran; [2]McGill University, Montreal, Canada*

WPH 147 **The Application of Mass Spectrometry to Biological Problems: A Historical Perspective**; Michael A. Grayson; *Washington University, St Louis, MO*

WPH 148 **Practical Quadrupole Theory: Quadrupole Acceptance and Emittance Characteristics**; Randall E Pedder; *ABB Inc Analytical – Extrel QMS, Pittsburgh, PA*

WPH 149 **Facile Detection of PFB-Eicosanoid Regulatory Lipids with GC/ECNCI/ITMS at fg/µL Sensitivity From Piglet Breath Condensate as Non-Invasive Inflammatory Response Monitors**; Gail A Harkey[1]; Roland Geyer[2]; Tina A Tynan[2]; David C White[2]; Jennifer Smol[3]; Joany Jackman[3]; Sachin Mani[4]; Marti Jett[4]; Keiji Asano[5]; *[1]Thermo Electron Analytical Instruments Div., Schaumburg, IL; [2]U of TN, Center for Biomarker Analysis, Knoxville, TN; [3]The Johns Hopkins University Applied Physics Laboratory, Laurel, MD; [4]Walter Reed Army Institute of Research, Silver Spring, MD; [5]Oak Ridge National Laboratory, Oak Ridge, TN*

WPH 150 **A New Higher-Capacity 3D Quadrupole Ion Trap**; Alex Mordehai; Bryan Miller; Frank Kuhlmann; *Agilent Technologies, Santa Clara, CA*

WPH 151 **9.4 T FT-ICR MS Instrument Configured for Compositional Analysis of Non-Polar Petrochemical Components**; Tanner M Schaub[2]; Christopher L Hendrickson[1]; Kuangnan Qian[3]; Ryan P Rodgers[1]; Alan G Marshall[1]; *[1]National High Magnetic Field Laboratory, Tallahassee, FL; [2]Florida State University, Tallahassee, FL; [3]. ExxonMobil Research and Engineering Company, Annandale, NJ*

WPH 152 **Analytical Approach for the Description of Ion Motion, Ion Energy and Collisional Relaxation in Quadrupole Mass Spectrometry.**; Vladimir I Baranov; *MDS SCIEX, Concord, Canada*

WPH 153 **Electrospray and Matrix-Assisted Laser Desorption Ionization Mass Spectrometry of Some Organometallic Compounds**; Pauline J Vollmerhaus; Qing Yang; Takeo Sakuma; *MDS Sciex, Concord, Canada*

WPH 154 **Operation of a Linear Quadrupole Ion Trap Mass Spectrometer Under High Space Charge Conditions**; Michael W. Senko[1]; Jae C. Schwartz[1]; Andreas Wieghaus[2]; *[1]Thermo Electron, San Jose, CA; [2]Thermo Electron, Bremen, Germany*

WPH 155 **Orbitrap Mass Analyzer: Analytical Performance and Simulations**; Hongyan Li[1]; Alexander Makarov[2]; Robert J. Noll[1]; Mark Hardman[3]; Guangxiang Wu[1]; R. Graham Cooks[1]; *[1]Purdue University, West Lafayette, IN; [2]ThermoFinnigan, Bremen, Germany; [3]ThermoFinnigan, San Jose, CA*

WPH 156 **0.1 ppm Mass Accuracy for Polypeptides: The Next Milestone in Fourier Transform Mass Spectrometry**; Mikhail M Savitski[1]; Igor A Ivonin[1]; Youri O Tsybin[2]; Per Håkansson[2]; Roman A Zubarev[1]; *[1]Labarotary for Biological & Medical Mass Spectrometry, Uppsala Box 534, Ångström Lab, Sweden; [2]Material Science, Ion Physics, Uppsala Box 534, Ångström Lab, Sweden*

WPH 157 **Novel Miniature FTMS for Analysis of Corrosives and Chemical Warfare Agents**; Wayne V Rimkus; Dean V Davis; Kenneth Gallaher; *Siemens Applied Automation, Bartlesville, OK*

WPH 158 **Simultaneous Determination of Psychotropics in Blood Using a New Quadrupole-Linear Ion Trap Mass Spectrometer**; Tomoko Nembai[1]; Hajime Miyaguchi[2]; Hitoshi Sekine[2]; Makiko Komatsu[1]; Tetsuo Kokaji[1]; Sumie Ando[1]; *[1]Applied Biosystems Japan Ltd., Tokyo, Japan; [2]Saitama Prefectural Police Headquarters, Saitama, Japan*

WPH 159 **A New High Energy Dynode Design for LC-MS**; Dick Stresau; Wayne Sheils; Kevin Hunter; *ETP Electron Multipliers, Ermington, Australia*

WPH 160 **The Impact of the Cone of Reflection on Mass-Selective Axial Ejection from a Linear Quadrupole Ion Trap**; Frank A. Londry; *MDS Sciex, Concord, Canada*

ION ACTIVATION: DISSOCIATION

WPI 161 **Fragmentation Reactions of Protonated Aromatic Amino Acids: Formation of Radical Cations**; Houssain El Aribi; Alan C. Hopkinson; Michael K. W. Siu; *York University, Toronto, Canada*

WPI 162 **Comparison of Fragmentation of Ionized Volatile Organic Compounds by CID vs SID for Resolution of Isobars**; Michael L. Alexander[1]; Peter Prazeller[1]; Julia Laskin[1]; Elena Boscaini[2]; Jean H. Futrell[1]; *[1]Pacific Northwest National Laboratory, Richland, WA; [2]Institute for Ion Physics, University of Innsbruck, Innsbruck, Austria*

WPI 163 **Calibration of Ion Effective Temperatures Achieved by Resonant Activation In a Quadrupole Ion Trap Mass Spectrometer**; Valérie Gabelica[1]; Michael Karas[1]; Edwin De Pauw[2]; *[1]Johann-Wolfgang Goethe Universität Frankfurt, Frankfurt am Main, Germany; [2]Université de Liège, Liège, Belgium*

WPI 164 **Theoretical & Experimental Evidences for the Intramolecular Eletrophilic Aromatic Substitution Reaction of Protonated LB42908 in the Gas-Phase**; Yong-Hyeon Yim[1]; Sik Lee[2]; Tae Geol Lee[1]; Byungjoo Kim[1]; Hun-Young So[1]; *[1]Korea Research Institute of Standards and Science, Daejeon, South Korea; [2]KISTI, Daejeon, South Korea*

WPI 166 **Classical Kinetic Theory of Electric Field Excitation in Quadrupole Ion Traps**; Douglas E. Goeringer[1]; Larry A. Viehland[2]; *[1]Oak Ridge National Laboratory, Oak Ridge, TN; [2]Chemical Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN; [3]Division of Science, Chatham College, Pittsburgh, PA; [4]Chatham College, Pittsburgh, PA*

WPI 167 **Fragmentation Of Protonated Conjugated Amides at the C—C(O) Bond: an Ion-Neutral Complex Identified by the Kinetic Method**; Ya-Ping Tu; *Roche Pharmaceuticals, Palo Alto, CA*

WPI 168 **High Sensitivity Infrared Multiphoton Dissociation Using a Pulsed Gas Nozzle in a Quadrupole Ion Trap Mass Spectrometer**; Yuichiro Hashimoto[1]; Hideki Hasegawa[1]; Izumi Waki[1]; Kiyomi Yoshinari[2]; *[1]Hitachi, Ltd., Hitachi Research Laboratory, Hitachi, Japan; [2]Hitachi, Ltd., Central Research Laboratory, Tokyo, Japan*

WPI 169 **Comparison of SORI-CID and MSAD for Top-Down Protein Dissociation**; Karin M. Keller[1]; Jennifer S. Brodbelt[1]; Robert L. Hettich[2]; Gary J. Van Berkel[2]; *[1]The University of Texas, Austin, TX; [2]Oak Ridge National Laboratory, Oak Ridge, TN*

WPI 170 **CAD and Computational Studies of Doubly- and Triply-Charged Metal/DMSO complexes**; John A. Stone[1]; Timothy Su[2]; Dragic Vukomanovic[2]; *[1]Queen's University, Kingston, Canada; [2]University of Massachusetts Dartmouth, North Dartmouth, MA*

WPI 171 **Cu(II)-Catalyzed Reactions in Ternary Cu(II)-Amino Acid Monocations**; Ping Wang; Chrys Wesdemiotis; *The University of Akron, Akron, OH*

WPI 172 **Tandem Mass Spectrometry of Isomeric Hexaaza-Macrocyclic Ni(II) Complexes based on S-substituted-isothiocarbohydrazides**; Sergiu P. Palii[1]; Anatol A. Dobrov[2]; Nicolae V. Gerbeleu[2]; Dmitri V. Zagorevskii[3]; John R. Eyler[1]; *[1]UF, Gainesville, Florida; [2]Department of Chemistry, University of Florida, Gainesville, FL*

WPI 173 **Dynamics of Ion Selection and Collision Induced Dissociation in a New Electrospray Multiple Quadrupole 2-D Trap Time-Of-Flight Mass Spectrometer**; V. Sergey Rakov; Lisa M. Cousins; Gholamreza Javahery; Craig M. Whitehouse; *Analytica of Branford Inc., Branford, CT*

WPI 174 **The Generation and Detection of Succinimidooxy Radical by Tandem Mass Spectrometry**; Dmitri Zagorevski; Jerry Abrams; Curt Breneman; *Rensselaer Polytechnic Institute, Troy, NY*

WPI 175 **Arrhenius Activation Parameters for the Loss of Nucleobase from Deprotonated Oligonucleotide Ions in the Gas Phase**; Rambod Daneshfar; John S Klassen; *University of Alberta, Edmonton, Canada*

WPI 176 **Time Delayed Fragmentation of Peptide Ions Using Tandem Linear Ion Traps**; James W. Hager; *MDS SCIEX, Concord, Canada*

WPI 177 **Application of Thermally Assisted-Collision Induced Dissociation to Molecules Resistant to Low Energy Collision Induced Dissociation at Ambient Temperature**; Alawee H. Racine; Gary L. Glish; *University of North Carolina, Chapel Hill, NC*

WPI 178 **Fragmentations of Negative Ions Produced by Electrospray Ionization of Polyfunctional Amino Acids**; J. Stuart Grossert; Paul D. Fancy; Robert L. White; *Dalhousie University, Halifax, Canada*

WPI 179 **Determination of Relative Cooling Rates using Infrared Multiphoton Photodissociation in a Quadrupole Ion Trap**; David M. Black; Anne H. Payne; Gary L. Glish; *University of North Carolina, Chapel Hill, NC*

WPI 180 **Surface-Induced Dissociation (SID) and Surface-Induced Dissociative Charge Inversion of Nitrobenzene**; Jormarie Alvarez; Hongyan Li; R. Graham Cooks; *Purdue University, West Lafayette, IN*

WPI 181 **The Formation of Gas and Liquid Phase Metal Cation/Pyocyanin Complexes**; Dragic Vukomanovic[1]; Timothy Su[1]; Diana Tatro[1]; Eric Steele[1]; John A. Stone[2]; *[1]U. of Massachusetts Dartmouth, North Dartmouth, MA; [2]Queen's University, Kingston, Canada*

WPI 182 **Metastable Ion Decay in IR-MALDI: Charge State and Desorption Wavelength Effects**; Robert S. Brown; Edward E. Durrant; *Utah State University, Logan, UT*

WPI 183 **Wavelength and Time-Resolved Luminescence Spectroscopy of the Matrix Assisted Laser Desorption Process**; Tassilo Muskat; Dirk Walbrodt; Juergen Grotemeyer; *Institute for Physical Chemistry, University Kiel, Kiel, Germany*

WPI 184 **Violation of the Even-Electron Rule in the CID of Taxoid Core Skeleton Prepared by Cone-Voltage Induced Decomposition**; Alain Lesimple[1]; Lolita Zamir[2]; Qing Shi[2]; Orval Mamer[1]; *[1]MS Unit, McGill University, Montreal, Canada; [2]INRS - Institut Armand-Frappier, Laval, Canada*

ION MOLECULE REACTIONS

WPJ 185 **Gas-Phase Structure of Four-Coordinate Divalent Metal Complexes from Ion-Molecule Reactions**; Marianny Y Combariza; Richard W Vachet; *University of Massachusetts, Amherst, MA*

WPJ 186 **Gas-Phase Measurements of the Kinetics of Ligation of First Row Transition-Metal Ions with Pyridine and the Molecular Gases O_2, CO and CO_2**; Michael J. Y. Jarvis; Voislav Blagojevic; Diethard K. Bohme; *York University, Department of Chemistry, Toronto, Canada*

WPJ 187 **The Gas-Phase Chemical Behavior of Positively Charged Phenyl Radicals Towards Lysine, Phenylalanine, Tryptophan and Tyrosine**; Yiqun Huang; Hilkka Kenttamaa; *Purdue University, West Lafayette, IN*

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WPJ 189 **Effect of Hydroxyl Substituents on the Reactivity of *m*-Benzyne Analogs in FT-ICR**; Katrina E. Nizzi; F. Sedinam Amegayibor; Jason M. Price; Hilkka I. Kenttämaa; *Purdue University, West Lafayette, IN*

WPJ 190 **Comparison of the Chemical Properties of *o*-Benzynes to Other Biradicals by Using the Distonic Ion Approach and FT-ICR**; Karinna M. Campbell; F. Sedinam Amegayibor; John J. Nash; Hilkka I. Kenttamaa; *Purdue University, West Lafayette, IN*

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WPJ 192 **Examination of the Reactivity of the Cyclopentadienyl Cobalt Radical Cation (CpCo +) with Cyclic Hydrocarbons Using Fourier Transform Ion Cyclotron Resonance (FT-ICR) Mass Spectrometry: Application for the Identification of Hydrocarbons Produced from Pyrolyses of Benzenesulfonate Esters**; Putuma Gqamana; J. Larry Campbell; Hilkka I. Kenttamaa; Kate Pease Williams; John J. Nash; *Department of Chemistry, Purdue University, West Lafayette, IN*

WPJ 193 **A Fourier Transform Ion Cyclotron Resonance Mass Spectrometry Study of the Gas Phase Host/Guest Chemistry of Some New Calix-[4]-Pyrroles**; Xue Kui Ji; David S.C. Black; Stephen B. Colbran; Donald Craig; Gary D. Willett; *The University of New South Wales, Sydney, Australia*

WPJ 194 **Gas Phase Energetics of the Interactions Between Water and Amino Acids**; Nancy E Vieira; John J Gilligan; Alfred L Yergey; *NICHD, National Institutes of Health, Bethesda, MD*

WPJ 195 **FT-ICR Studies on the Reactivity of Aromatic Biradical Towards DNA Components**; Anthony Adeuya; Linan Yang; F. Sedinam Amegayibor; Hilkka I. Kenttamaa; *Purdue University, West Lafayette, IN*

WPJ 196 **FT-ICR Studies on Phenyl Radicals' Attack on Simple Amino Acids and Quantitative Analysis of Site Selectivity in H-Abstraction**; Linhong Jing; Leonard P. Guler; Hilkka I. Kenttämaa; *Purdue University, West Lafayette, IN*

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WPJ 199 **Wrangling the Intricacies of a Chen Nozzle Coupled to an FT-ICR**; Amber L. Russell; David Read; Don L. Rempel; Peter P. Gaspar; Micheal L. Gross; *Washington University, Department of Chemistry, St. Louis, MO*

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WPJ 203 **The Reaction of Diacetylene Radical Cation with Ethylene**; Daniel J Goebbert; Xinping Liu; Paul G Wenthold; *Purdue University, West Lafayette, IN*

WPJ 204 **A Reactivity and Mechanistic Study of Halocarbyne Cations, CX+(X = F, Cl, and Br), with Acetylene, Phenylacetylene, and Benzene in the Gas-Phase**; Xinping Liu; Peter P. Gaspar; Michael L. Gross; *Washington University, St. Louis, MO*

WPJ 205 **Reactivity Studies of Di- and Trinucleotides with Charged Phenyl Radicals in FT-ICR**; Ji-ang Liu; Christopher J. Petzold; Luis E. Ramirez-Arizmendi; Hilkka Kenttamaa; *Purdue University, West Lafayette, IN*

WPJ 206 **Flow Tube Studies of N^+ and N_2^+ with NO and O_2 from 300-1400 K**; Anthony J. Midey[2]; Thomas M. Miller[2]; A. A. Viggiano[1]; *[1]Air Force Research Laboratory, Hanscom AFB, MA; [2]Visidyne, Inc., Burlington, MA*

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WPK 208 **Laser Pulse Length Dependence of Internal Energy Transfer in MALDI**; Guanghong Luo; Ioan Marginean; Louise Ye; Akos Vertes; *Department of Chemistry, George Washington University, Washingotn DC*

WPK 209 **Matrix Suppression and Cationization in MALDI MS**; Juan Zhang; Vladimir Frankevich; Renato Zenobi; *Swiss Federal Institute of Technology (ETH Zürich), Zürich, Switzerland*

WPK 210 **Studies of Ion Formation from Matrix Assisted Laser Desorbtion / Ionization at Atmospheric Pressure**; Jian Bai; Jean-Luc Truche; Alex Mordehai; Pat Perkins; *Agilent Technologies, Santa Clara, CA*

WPK 211 **Role of the Gas Phase Basicity and Acidity of Matrices on the Internal Energy Distribution on Ions Produced from MALDI Experiments**; Jean-Claude Tabet[1]; Sandra Alves[1]; Vincent Livadaris[1]; Francoise Fournier[1]; Carlos Afonso[1]; Jean-Claude Blais[1]; *[1]Laboratoire de chimie structurale organique et biologique, U.P.M.C., Paris, France; [2]Laboraoire de chimie structurale organique et biologique, U.P.M.C., Paris, France*

WPK 212 **Multiply Charged Ions and Fragmentation in MALDI**; Vladimir E Frankevich; Juan Zhang; Antonis Koubenakis; Renato Zenobi; *Department of Chemistry, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland*

WPK 213 **IR-MALDI from Ice: Wavelength Dependence of Ion Yields**; Michelle L Baltz-Knorr; Kenneth E Schriver; Richard F Haglund; *Vanderbilt University, Nashville, TN*

WPK 214 **Exciton Mobility in UV-MALDI Matrices**; Patrick D. Setz[1]; Richard Knochenmuss[2]; *[1]Dept. of Chemistry, Swiss Federal Inst. of Technology, Zurich, Switzerland; [2]Novartis Pharma, Basel, Switzerland*

WPK 215 **Formation of Singly Charged Metal Complexes in the Gas Phase**; Sasa Kazazic; Leo Klasinc; Marko Rozman; Dunja Srzic; *Institute Rudjer Boskovic, Zagreb, Croatia*

WPK 216 **Laser Pulse Length Dependence of Ionization Processes in UV-MALDI-MS**; Yong Chen; Akos Vertes; *George Washington University, Washington, DC*

WPK 217 **Study of Fatty Acids and Sulfonic Acids by Desorption/Ionization on Silicon Mass Spectrometry**; Natali Budimir[1]; Françoise Fournier[1]; Jean-Claude Blais[1]; Franck Wind[2]; Jean-Claude Tabet[1]; *[1]Laboratoire de Chimie Structurale Organique et Biologique, PARIS VI, Paris, France; [2]Centre d'Etudes du Bouchet, Vert-le-Petit, France*

WPK 218 **Using FTIR-ATR to Probe Infrared Laser Desorption Ionization Mechanisms**; Jorge L. Laboy[1]; Mark W. Little[2]; Kermit K. Murray[2]; *[1]University of Puerto Rico-Mayaguez, Mayaguez, PR; [2]Louisiana State University, Baton Rouge, LA*

WPK 219 **Nanoparticle Detection as an Evidence of Ion Precursor Existence in MALDI**; Sandra Alves; Markus Kalberer; Renato Zenobi; *ETH Honggerberg, Zurich, Switzerland*

WPK 220 **Modeling Nanosecond Non-Activated Thermal Decay of MALDI Matrices Containing Preformed Analyte Ions and Partially Ionized Matrix Molecules as the Origin of Pneumatic Assistance**; Victor L. Talroze[1]; Ilya O. Leipunsky[2]; A. L. Burlingame[1]; Michael A. Baldwin[1]; *[1]Mass Spectrometry Facility, University of California, San Francisco, CA; [2]Russian Academy of Sciences, Moscow, Russia*

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WPL 222 **Simultaneous Analysis of Prostaglandins and Prostaglandin Glycerol Esters by Electrospray LC-MS-MS**; Philip J Kingsley; Samir Saleh; Lawrence J Marnett; *Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, TN*

WPL 223 **Identification of Urinary Leukotriene B_4 Metabolites in Human Subjects**; Karin A. Zemski Berry[1]; L. Flamand[2]; J. Gosselin[2]; P. Borgeat[2]; Robert C. Murphy[1]; *[1]National Jewish Medical and Research Center, Denver, CO; [2]Virocell Inc., Quebec, Canada*

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Egea; Michael Balazy; *New York Medical College, Valhalla, NY*

WPL 226 **LC-MS-MS Determination of Adducts of 1,3-Diethyl-2-Thiobarbituric Acid and Malonaldehyde as a Measure of Lipid Peroxidation**; Dongwei Zhu[1]; Wenkui Li[1]; Yongmei Li[1]; Richard B van Breemen[1]; *[1]Univ. of Illinois at Chicago,College of Pharmacy, Chicago, IL*

WPL 227 **Breath Condensate Lipids as Non-Invasive Biomarkers for Respiratory Pathophysiology**; David C. White[1]; Roland Geyer[1]; Tina A. Tynan[1]; Erin Terry[2]; Jennifer Smoll[3]; Sacchin Mani[4]; Marti Jett[4]; Joany Jackman[3]; Michael D. Karlstad[5]; Jason D. Morrow[2]; *[1]Center for Biomarker Analysis, The University of Tennessee, Knoxville, TN; [2]Vanderbilt University Medical Center, Nashville, Tennessee; [3]The Johns Hopkins University Applied Physics Laboratory, Laurel, MD; [4]Walter Reed Army Institute of Research, Silver Spring, Maryland; [5]The University of Tennessee Medcial Center, Knoxville, TN*

WPL 228 **Analysis of Bioactive Lipids by Liquid Chromatography/Electron Capture Atmospheric Pressure Chemical Ionization/Mass Spectrometry**; Seon Hwa Lee[1]; Michelle Williams[1]; Raymond N. DuBois[2]; Ian A. Blair[1]; *[1]Center for Cancer Pharmacology, University of Pennsylvania, Philadelphia, PA; [2]Department of Medicine, Vanderbilt University, Nashville, TN*

WPL 229 **Use of Stable Isotope Analogs to Identify a Synthetic Pathway of 5-oxo-ETE unique for 5-Hydroperoxyeicosatetraenoic Acid in the Murine Macrophage**; Simona Zarini; Robert C. Murphy; *National Jewish Medical and Research Center, Denver, CO*

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WPM 231 **Study of Bonded Phases Cleaved from Silica-Based Liquid Chromatographic Packing Materials by Electrospray Ionization-Mass Spectrometry**; Yuehong Xu; Thomas H. Walter; *Waters Corporation, Milford, MA*

WPM 232 **Characterization of a Titanium Oxide Molecular Cluster by ESI-TOF MS.**; Gregory A. Khitrov[1]; Jean-Jacques Gaumet[2]; Geoffrey F. Strouse[1]; *[1]University of California, Santa Barbara, CA; [2]Universite' de Metz, Metz, France*

WPM 233 **Characterization and Mapping of Irganox 1010 Oxidation Products Using Electrospray MS/MS**; Carsten W. Møller[1]; Laila R. Vo[1]; Henrik Olsen[2]; *[1]Novo Nordisk A/S, Bagsværd, Denmark; [2]Novo Nordisk A/S, Måloev, Denmark; [3]Novo Nordisk A/S, Måløv, Denmark*

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WPN 237 **LDI (and MALDI) -TOF-MS Monitoring of Simultaneous Inorganic and Organic Heterogeneous Reactions on Particles Levitated in an Electrodynamic Balance in a Laboratory Environment**; George R. Agnes; Allen E. Haddrell; Michael J. Bogan; *Department of Chemistry, Simon Fraser University, Burnaby, Canada*

WPN 238 **Simultaneous Aerosol Particle Characterization by Two Bipolar TOF Laser Mass Spectrometers LAMPAS 2 and SPASS**; Klaus-Peter Hinz[1]; Carsten Grüning[2]; Paolo Cavalli[2]; Nicole Erdmann[2]; Bernhard Spengler[1]; *[1]Institute of Inorganic and Analytical Chemistry, University of Giessen, Giessen, Germany; [2]Institute for Environment and Sustainability, JRC Ispra, Ispra, Italy*

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WPO 240 **Investigation of Chemical Derivatization For Peptide CID Using LC-MALDI TOF MS/MS**; Philip L Ross; Yulin Huang; Sasi Pillai; Babu Purkayastha; Igor Smirnov; Darryl Pappin; *Applied Biosystems, Framingham, MA*

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WPO 242 **"*De novo*" Peptide Sequencing by MALDI-Quadrupole-Ion Trap Mass Spectrometry**; Wenzhu Zhang; Andrew N. Krutchinsky; Brian T. Chait; *The Rockefeller University, New York, NY*

WPO 243 **Combined Electron Capture Dissociation and Infrared Multiphoton Dissociation Multistage MS/MS for Improved Structural Characterization of Proteolytic Peptides and Their Posttranslational Modifications**; Kristina Hakansson[1]; Michael J. Chalmers[1]; John P. Quinn[1]; Melinda A. McFarland[2]; Christopher L. Hendrickson[1]; Alan G. Marshall[1]; *[1]Ion Cyclotron Resonance Program, NHMFL, Florida State University, Tallahassee, FL; [2]Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL*

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WPO 247 **Study of Negative Cationized Peptide Complexes: Fragmentation Pathways and Dissociation Energy**; Anne Bossee[1]; Françoise Fournier[2]; Olivier Tasseau[2]; Bruno Bellier[1]; Jean-Claude Tabet[2]; *[1]Centre d'Etudes du Bouchet, Vert le Petit, France; [2]Université Paris VI, Paris, France*

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Bartner[1]; Ajay K. Bose[2]; Birendra N. Pramanik[1]; *[1]Schering-Plough Research Institute, Kenilworth, NJ; [2]Stevens Institute of Technology, Hoboken, NJ*

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WPO 251 **Enhanced Dissociation of N-terminal Residues from Amidinated Peptides and its Application to Protein Identification**; Richard L. Beardsley; Matthew S. Thompson; Weidong Cui; James P. Reilly; *Indiana University, Bloomington, IN*

WPO 252 **Electron Capture Dissociation Fourier Transform Ion Cyclotron Resonance Mass Spectrometry of Non-Standard Peptides**; Helen J. Cooper[1]; Robert R. Hudgins[2]; Alan G. Marshall[1]; *[1]ICR Program, NHMFL, Florida State University, Tallahassee, FL; [2]Dept. of Chemistry, York University, Toronto, Canada*

WPO 253 **Electron Capture Dissociation of Di-Arginine Containing Synthetic Peptides**; T.-W.D. Chan; Y.M.E. Fung; *The Chinese University of Hong Kong, Hong Kong SAR, China*

WPO 254 ***De novo* Sequencing Identifies a Fe-Deficiency Induced Protein**; Michael Hippler[2]; Einar J. Stauber[2]; Andrej Shevchenko[3]; Peter Suemmchen[1]; Fernando Maroto[1]; Michaela Scigelova[1]; *[1]Thermo Finnigan, Hemel Hempstead, UK; [2]Friedrich Schiller University, Jena, Germany; [3]Max Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany*

WPO 255 **Novel Reaction of γ-Lactam Formation in Hot Electron Capture Dissociation: A Complementary Way for Distinguishing Ile and Leu Amino Acid Residues in Polypeptides**; Frank Kjeldsen[1]; Esben S. Sørensen[2]; Roman A. Zubarev[1]; *[1]Laboratory of biological mass spectrometry, Uppsala University, Uppsala, Sweden; [2]Laboratory of biological mass spectrometry, Uppsala, Sweden*

WPO 256 **Improvement of Electron Capture Dissociation Efficiency by Resonant Excitation and Its Application to Sequencing of Modified Peptides**; Michael Mormann; Jasna Peter-Katalinic; *Institute of Medical Physics, Muenster, Germany*

WPO 257 **Enhanced Peptide Sequencing by PSD MALDI-TOF after Derivatization by 4-Sulfophenyl Isothiocyanate**; Lyuben N Marekov; Peter M Steinert; *NIH/NIAMS, Bethesda, MD*

WPO 258 **Automated *de novo* Sequencing of Isotope-Coded, Charged, N-Terminal Peptide Derivatives Using Characteristic Fragmentation Patterns Induced by Low Energy Collisions**; Jason Rogalski; Robert J. Taylor; Michael Lin; Shujun Lin; Juergen Kast; *Biomedical Research Centre, University of British Columbia, Vancouver, Canada*

WPO 259 **Studies of Hormonal Peptides from Mouse Pancreatic Islets Using Liquid Chromatography Fourier Transform Ion Cyclotron Resonance Mass Spectrometry**; Margareta Ramström[1]; Charlotte Hagman[2]; Youri O. Tsybin[2]; Karin E. Markides[1]; Per Håkansson[2]; Albert S. Salehi[3]; Ingmar Lundqvist[3]; Rolf Håkanson[3]; Jonas Bergquist[1]; *[1]Department of Analytical Chemistry, Uppsala University, Uppsala, Sweden; [2]Division of Ion Physics, Uppsala University, Uppsala, Sweden; [3]Department of Pharmacology, Lund University, Lund, Sweden*

WPO 260 **Mass Spectrometric Peptide Fragmentation Systematic**; David Fenyo[1]; Julio C Padovan[2]; Ron C Beavis[3]; Brian T Chait[2]; *[1]Amersham Biosciences AB, Uppsala, Sweden; [2]Rockefeller University, New York, NY; [3]University of Manitoba, Winnipeg, Canada*

WPO 261 ***De novo* Sequencing of Different Types of Peptides Using MSn and Time Delay Fragmentation Scans**; Feng Zhong; Xu Guo; Takeo Sakuma; *Applied Biosystems/MDS SCIEX, Concord, Canada*

WPO 262 **Fragmentation Chemistry of Oligopeptide Radical Cations**; Yuyong Ke[1]; Elham Bagheri-Majdi[1]; Houssain El Aribi[1]; Alan C. Hopkinson[1]; K.W. Michael Siu[1]; *[1]York University, Toronto, Canada; [2]Department of Chemistry and CRMS, York University, Toronto, Canada*

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WPP 265 **Identification and Circumvention of Free Cysteine-Containing Peptide Contaminants Isolated and Derivatized During Fe(III)-IMAC/β-Elimination of Phosphopeptides**; Andrew J. Thompson; Rainer Cramer; *The Ludwig Institute for Cancer Research, London, United Kingdom*

WPP 266 **Selective Enrichment of Low-Abundance Phosphopeptides from Tryptic Digests of Complex Biological Mixtures Using Immobilized Metal Affinity Chromatography**; Michael G. Jennings; Gary W. Lange; Bernard N. Violand; John J. Finnessy; James A. Carroll; *Pharmacia, Chesterfield, MO*

WPP 267 **Open Tubular IMAC Combined with MALDI MS and MS/MS for Phosphoprotein Characterization**; Huaizhi Liu[1]; Jing Zheng[1]; Bernd Keller[1]; Brenda Booth[2]; Larry Fliegel[2]; Liang Li[1]; *[1]Department of Chemistry, University of Alberta, Edmonton, Canada; [2]Department of Biochemistry, University of Alberta, Edmonton, Canada*

WPP 268 **Evaluation of Methods for Phosphorylation Site Determination**; Anita Izrael-Tomasevic; Kathy Stults; David Arnott; *Genentech, Inc., South San Francisco, CA*

WPP 269 **Negative and Positive AP-MALDI Analysis of Synthetic Phosphopeptides and Bovine beta-Casein Using Immobilized Metal Affinity Chromatography Ga(III) IMAC**; Nelli I. Taranenko[1]; Anna V. Pashkova[2]; Vladimir M. Doroshenko[1]; *[1]MassTech, Burtonsville, MD; [2]Northeastern University, Boston, MA*

WPP 270 **A Method for Selectively Enriching/Purifying Phosphopeptides and Improving Procedure of Phosphosite Mapping**; Fan Xiang[1]; Jim Schilling[1]; Wenkui L. McEldoon[2]; Marcus J. Horn[2]; *[1]SUGEN, Inc., South San Francisco, CA; [2]BioMolecular Technologies, Inc, Sunnyvale, CA*

WPP 271 **Characterization of Phospho-Peptides in the Multifunctional Enzyme CAD**; Eric M. Wauson[1]; Jun Han[1]; Kevin L. Carrick[2]; Marshall Pope[2]; Lee M. Graves[1]; *[1]Univ. of North Carolina, Dept. of Pharmacology, Chapel Hill, NC; [2]Univ. of North Carolina, Dept. of Biochemistry and Biophysics, Chapel Hill, NC*

WPP 272 **Post-Translational Modifications in Clinical Endometrial Carcinoma Samples**; Leroi V DeSouza[1]; Prem S. Nellipudi[1]; K. W. Michael Siu[1]; *[1]York University, Chemistry Dept., Centre for Research in Mass Spec., Toronto, Canada; [2]York University, Toronto, Canada*

WPP 273 **ABRF-PRG03: Survey of Current Practices and Capabilities for Determining Sites of Protein Phosphorylation**; Thomas A. Neubert[1]; David P. Arnott[1]; Mary Ann Gawinowicz[1]; Ray A. Grant[1]; Len C. Packman[1]; Kaye Speicher[1]; Kathy Stone[1]; Christoph W. Turck[1]; *[1]Association of Biomolecular Resource Facilities, Santa Fe, NM; [2]New York University, New York, NY*

WPP 274 **MALDI TOF MS and LC-MS/MS Strategies for Identification of Direct Protein Kinase Substrates**; Erol E. Gulcicek; Isabelle M. Gusev; Jin Duan; *Cellular Genomics, Inc., Branford, CT*

WPP 275 **Dissecting the Phosphorylation Pattern of a Myogenic Regulator (MEF2A) by Mass Spectrometry**; David M. Cox[1]; Min Du[1]; Michaela Marback[1]; Eric C.C. Yang[1]; Joseph Chan[1]; Jenny C.Y. Chan[3]; Ivan K. Chu[3]; John C. McDermott[1]; K.W. Michael Siu[2]; *[1]Department of Biology, York University, Toronto, Canada; [2]Department of Chemistry, York University, Toronto, Canada; [3]Department of Chemistry, University of Hong Kong, Hong Kong, China*

WPP 276 **Rapid Identification and Mapping of Phosphopeptides by Combined Immobilized Metal Ion Chromatography and MALDI TOF-TOF Analysis**; Peter S. Backlund, Jr[1]; Roland S. Annan[3]; Francesca Zapacasta[3]; Therese Sterner[3]; Jeffrey A. Kowalak[2]; Alfred L. Yergey[1]; *[1]NIMH, NIH, Bethesda, MD; [2]NICHD, NIH, Bethesda, MD; [3]GlaxoSmith Kline, King of Prussia, PA*

WPP 277 **Analysis of Serine-/Threonine-Phosphorylation Sites via Peptide Derivatization**; Joerg Reinders[1]; Albert Sickmann[1]; Detlev Suckau[2]; Katrin Marcus[3]; Denise Grillmaier[2]; Helmut E. Meyer[3]; *[1]Rudolf-Virchow-Center for Experimental Biomedicine, Wuerzburg, Germany; [2]Bruker Daltonik, Bremen, Germany; [3]Medical Proteom Center, Ruhr-University, Bochum, Germany*

WPP 278 **Aspects of Mass Spectrometric Phosphorylation Analysis With an Emphasis on the Intact Protein**; Martin Zeller; Simone König; *ICCR, Core Group Integrated Functional Genomics, Münster, Germany*

WPP 279 **Sequencing of a Phosphorylated Peptide with a High Arginine Content Corresponding to Residues 260-276 of Connexin 43 by Nanospray and MALDI-MS/MS**; Vincent C. Chen[1]; Keding Cheng[2]; Oleg Krohkin[3]; Werner Ens[3]; Kenneth G. Standing[3]; James I. Nagy[4]; Helene Perreault[1]; *[1]Department of Chemistry,University of Manitoba, Winnipeg, Canada; [2]Department of Chemistry, University of Manitoba, Winnipeg, Canada; [3]Department of Physiology, University of Manitoba, Winnipeg, Canada; [4]Manitoba Center for Proteomics, Winnipeg, Canada*

WPP 280 **Evaluation of Commercially Available IMAC Kits: Millipore ZipTip$_{MC}$, Eprogen IPAC Beads and Pierce Swellgel Gallium Chelated Disks**; Azita Kaffashan; Chenhui Zeng; *Department of Analytical Biochemistry, Biogen Inc., Cambridge, MA*

WPP 281 **Mapping of the Phosphoproteome - A Chemoenzymatic Approach for Rapid Phosphorylation Site Identification using Phosphospecific Proteolysis and Mass Spectrometry**; Zachary A. Knight[1]; Birgit Schilling[2]; Richard H. Row[2]; Bradford W. Gibson[2]; Kevan M. Shokat[3]; *[1]University of California, Chemistry / Chemical Biology, San Francisco, CA; [2]Buck Institute for Age Research, Novato, CA; [3]University of California Cell. and Mol. Pharmacology, San Francisco, CA*

WPP 282 **Confirmed Identification of Phosphopeptides Captured by IMAC and Prepared for MALDI MS Analysis Within a CD Microlaboratory**; Rikard Kånge[1]; Therese Sennerfors[1]; Eva Werner[1]; Karolina Österlund[1]; Allan Stensballe[2]; Ole Jensen[2]; Magnus Gustafsson[1]; *[1]Gyros AB, Uppsala, Sweden; [2]University of Southern Denmark, Odense, Denmark*

WPP 283 **Using MALDI-TOF and Q-TOF MS to Identify Phosphoproteins and their Phosphorylation Sites in Plant Storage Tissues.**; Ian J Tetlow[1]; Robin Wait[2]; David Knight[3]; Caroline G Bowsher[3]; Dyanne Brewer[1]; Michael J Emes[1]; *[1]Department of Botany/Molecular Biology,University of Guelph, Guelph, Canada; [2]Kennedy Institute of Rheumatology Division,Imperial College, London, United Kingdom; [3]School of Biological Sciences,University of Manchester, Manchester, UK*

PROCESS MONITORING

WPQ 284 **Mass Spectral Evidence for an Anhydride Intermediate in the Catalysis Of Thioester Hydrolysis by WT Arthrobacter Thioesterase**; Zhili Li[1]; Zhihao Zhang[2]; Debra Dunaway-Mariano[2]; Karen S Anderson[2]; *[1]Department of Pharmacology, Yale University, New Haven, CT; [2]Department of Chemistry, University of New Mexico, Albuquerque, NM*

WPQ 285 **Identification of MLN608 Impurities by Ion Chromatography Mass Spectrometry**; Elizabeth Baronas[1]; Debby Feder[2]; Frank Hsieh[1]; Teresa Pekol[1]; *[1]Millennium Pharmaceuticals, Cambridge, MA; [2]Millennium Pharmaceuticals, San Francisco, CA*

WPQ 286 **Development of an Ion-Pairing LC/MIMS Method for the Analysis of Small Molecules**; Narasimhan Kasthurikrishnan[1]; Patrick Furcolo[2]; Stephen Colgan[1]; *[1]Pfizer Inc, Groton, CT; [2]Stone Hill College, Easton, MA*

WPQ 287 **Process Monitoring for a Manufactured DOTA Conjugated Anti-PSMA Antibody**; Sharon X. Lu; Edward Takach; Marjorie Solomon; Qing Zhu; Kathy Mills; Say-Jong Law; Frank Hsieh; *Millennium Pharmaceuticals Inc., Cambridge, MA*

WPQ 288 **Impurity Detection and Identification by HPLC-TOF-MS Utilizing Accurate Mass Measurements**; Benjamin J. Cutak[1]; Tom C. Hassell[1]; Alan Mischo[2]; Trevor Bee[3]; David Stevens[3]; *[1]Sigma-Aldrich Corporation, Saint Louis, MO; [2]Sigma-Aldrich Corporation, Milwaukee, WI; [3]Sigma-Aldrich Corporation, Gillingham, UK*

PROTEINS: GENERAL

WPR1 289 **Characterization of the C-Terminal Heterogeneity of a Recombinant Monoclonal Antibody Using MALDI-TOF-MS**; Alexandru C. Lazar; Marek A. Kloczewiak; Istvan Mazsaroff; *EMD Pharmaceuticals, Lexington, MA*

WPR1 290 **Top Down Characterization of Proteins by Electron Capture Dissociation Mass Spectrometry: Mechanistic Enzymology of Thiamin Biosynthesis**; Huili Zhai; Pieter Dorrestein; Joo-heon Park; Tadhg, P. Begley; Fred, W. McLafferty; *Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY*

WPR1 291 **Systematic Characterization of *C. elegans* Polypeptides**; Roger Palfree[1]; Gurusamy Chinnasamy[1]; Alexandre Zougman[2]; Mike Aguiar[3]; Robert Masse[3]; Bernard F Gibbs[3]; *[1]McGill University, Montreal, Canada; [2]MDS Pharma Services, Montreal, Canada; [3]MDS Proteomics, Toronto, Canada*

WPR1 292 **Characterization of Human Asparagine Synthetase by FT-ICR MS**; Susan E. Abbatiello; John R. Eyler; Nigel G. Richards; David H. Powell; Jemy A. Gutierrez; Mihai Ciustea; Lukasz Koroniak; *University of Florida, Gainesville, FL*

WPR1 293 **Whole Protein MS/MS to Characterize Extent of Calmodulin Oxidation**; Nadezhda A. Galeva; S. Wynn Esch; Todd D. Williams; *University of Kansas, Lawrence, KS*

WPR1 294 **The Temperature Dependent Proteomic Profiles of Thermoanaerobacter Tengcongensis**; Jingqiang Wang[1];

Caifeng Zhao[1]; Kang Zhao[1]; Zhengfeng Zhou[1]; Jianmin Shao[1]; Hao Wang[1]; Yanfen Xue[2]; Yanhe Ma[2]; Jianning Yin[1]; Rong Wang[1]; Siqi Liu[1]; *[1]Beijing Genomics Institute, Chinese Academy of Sciences, Beijing, China; [2]Institute of Microbiology, Chinese Academy of Sciences, Beijing, China*

WPR1 295 **Characterization of the Proteome of Mouse Kidney Glomeruli Using 2-D Gel Electrophoresis and Mass Spectrometry**; Sam Tryggvason; Masatoshi Nukui; Karl Tryggvason; Hans Jörnvall; *Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden*

WPR1 296 **ProQual: Automated Analysis of High Resolution LC/MS Data from Enzymatic Digests for Quality Control of Protein Reagents**; Lee E. Frego[1]; Walter C. Davidson[1]; Gary H. Kruppa[2]; *[1]Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT; [2]MS Consulting Services, Livermore, CA*

WPR1 297 **The Effects of Supercharging on the Dissociation of Protein Ions**; Anthony T. Iavarone; Sanjay R. Krishnaswamy; Kolja Paech; Osita Udekwu; Evan R. Williams; *University of California, Berkeley, CA*

WPR1 298 **Quantitative Measurement of Protein Expression in Bacteria**; Tracie L. Williams; John H. Callahan; Steven R. Monday; Peter C.H. Feng; Steven M. Musser; *Center for Food Safety and Nutrition, FDA, College Park, MD*

WPR1 299 **Use of FTICR Mass Spectrometry in the Characterization of Recombinant Proteins**; Richard D Burton; Robert W Johnson; Laura J Miesbauer; Peter Fruehan; *Abbott Laboratories, Abbott Park, IL*

WPR1 300 **Analysis of Peanut Allergen Proteins Using Capillary LC and Nano ESI-QTOF Hybrid Mass Spectrometer**; Dorcas F Weber; Samuel Ben-Rejeb; Dave Davies; Michael Sahl; *Health Canada, Ottawa, Canada*

WPR1 301 **Protein Footprinting Using Radiolysis and Mass Spectrometry: Expanding the Probes and Target Proteins**; Guozhong Xu; Keiji Takamoto; Rutao Liu; Jing-Qu Guan; Mark R. Chance; *Center for Synchrotron BioSciences, Albert Einstein College of Medicine, Bronx, NY*

WPR1 302 **Purification and Characterization of Chromophoric Proteins in Marine Organisms**; Nicholas T. Hartman; A. Daniel Jones; Robert D. Minard; *Department of Chemistry, The Pennsylvania State University, University Park, PA*

WPR1 303 **Time-Course Studies of Protein Auto-Phosphorylation and Limited Proteolysis Using a Fully Automated LCMS System to Aid High Throughput Crystallography Studies**; Kheng B. Lim; Melinda Manuel; Ellen Chien; Daniel B. Kassel; *Syrrx, Inc., San Diego, CA*

WPR1 304 ***De novo* Sequencing of Gel-Separated Proteins by Mass Spectrometry**; Nhon Van Nguyen; Peter Hojrup; *Dept. of Biochemistry and Molecular Biology, Univ. of Southern Denmark, Odense, Denmark*

WPR1 305 **Detection of Intron-Derived Sequences in the Heavy Chain of a Recombinant Antibody by Reversed Phase Liquid Chromatography-Tandem Mass Spectrometry**; Hong Z. Wan; Babita Saxena; Michael Barry; Daniel Velez; Dale Ludwig; S. Joseph Tarnowski; Ann Daus; Qinwei Zhou; *ImClone Systems Incorporated, Somerville, NJ*

WPR1 306 **Towards Protein Complex Structure via Cross-Linking, Mass Spectrometry and Bioinformatics**; Thomas Taverner; Carol V Robinson; *Cambridge University, Cambridge, United Kingdom*

WPR1 307 **Identification of Trace Levels of Protease By Mass Spectrometry**; Steven L. Cohen; Gary Ward; Andrew Goulding; Sharon Wei; *Merck Research Laboratories, West Point, PA*

WPR1 308 **Identification of SLIC-1 Interacting Proteins Using Affinity Purification and Mass Spectrometry**; Lin Liu[1]; Heather Shih[2]; Gray Shaw[2]; Rod Hewick[1]; Yongchang Qiu[1]; *[1]Protein Chemistry and Proteomics, Wyeth, Cambridge, MA; [2]Musculoskeletal Sciences, Wyeth, Cambridge, MA*

WPR1 309 **A Top Down Approach to Protein Structural Studies Using Chemical Cross-Linking and Fourier Transform Mass Spect**; Petr Novak; Gary H. Kruppa; Joseph Schoeniger; Malin M. Young; *Sandia National Laboratories, Livermore, CA*

WPR1 310 **Open-Access Protein and Peptide Mass Spectrometry on a Micromass LCT System**; Wendy L White; Craig D Wagner; Erin G Chaney; Bindu A George; Karen A Hoffman; John T Hall; Jon D Williams; *GlaxoSmithKline, Inc., Research Triangle Park, NC*

WPR1 311 **Identification of Murine Glutathione S-Transferase Omega and Its Apparent Non-Reducible Homodimer**; Alyson E. Mitchell; Stephanie A. Burns; *University of California, Davis, CA*

WPR1 312 **Rapid Mass Measurement of Intact Proteins Using ESI-TOF**; Donghui Yi[1]; Jon D. Williams[2]; Michael Flanagan[1]; Linda L. Lopez[1]; Christine A. Miller[1]; *[1]Agilent Technologies, Santa Clara, CA; [2]GlaxoSmithKline, Research Triangle Park, NC*

PROTEINS: GLYCOPROTEINS

WPR2 313 **Studies with PNGaseF enzyme: N-linked Deglycosylation and Characterisation of Glycoproteins**; Asgar Electricwala; Ian Wright; Elner Rathbone; *Sigma-Aldrich Company Limited, Poole, England*

WPR2 314 **The Use of MALDI-TOF Mass Spectrometry to Determine Glycosylation of Plant-Produced Patient-Specific Single Chain Vaccines in a Phase 1 Clinical Trial**; Earl L. White; Tiffany Bliss; Terri I. Cameron; Stephen J. Garger; Kathleen M. Hanley; Tracey Mahon; Steve J. Reinl; Yonnie Wu; *Large Scale Biology Corporation, Vacaville, CA*

WPR2 315 **Structure Characterization of Mixtures of Permethylated Carbohydrates by Peak-Parking LC/MS^n**; Bhavana Shah; Zhongqi Zhang; Joseph Bordas-Nagy; *Amgen Inc., Thousand Oaks, CA*

WPR2 316 **Pro-γ-MSH Biology: Insights into Post-translational Effects on Biological Activity**; David Baranowski[1]; Hugh P.J. Bennett[1]; Alexandre Zougman[2]; Robert Masse[3]; Bernard Gibbs[3]; *[1]McGill University, Montreal, Canada; [2]MDS Pharma Services, Montreal, Canada; [3]MDS Proteomics, Toronto, Canada*

WPR2 317 ***O*-glycosylation Site Mapping in the EPGs of *Aspergillus niger* by LC/MS**; Min Xie[1]; Kumar V.S. Kolli[1]; Jacques A.E. Benen[2]; Jaap Visser[2]; Carl Bergmann[1]; Ron Orlando[1]; *[1]University of Georgia, Athens, GA; [2]Wageningen Agricultural University, Wageningen, The Netherlands*

WPR2 318 ***De novo* Sequencing and Characterization of an *N*-Linked Glycosylated Kappa Urinary Light Chain From a Patient Diagnosed With Primary Amyloidosis**; Amareth Lim; Yan Jiang; Andrew B. Dykstra; Lawreen H. Connors; Martha Skinner; Catherine E. Costello; *Boston University School of Medicine, Boston, MA*

WPR2 319 **Identification and Characterisation of N-Linked Glycosylation Patterns on the E2 Protein From Bovine Viral Diarrhoea Virus (BVDV) using Electrospray Mass Spectrometry**; Mark A Ritchie[1]; Andrew C Gill[2]; Munir Iqbal[2]; Amit Pande[2]; John MacCauley[2]; Therese McKenna[1]; James I Langridge[1]; *[1]Micromass MS Technologies, Manchester, UK; [2]Institute for Animal Health, Compton laboratories, Newbury, UK*

WPR2 320 **Glycosylation and Disulfide Bond Study of Turkey (*Meleagris gallopavo*) Prolactin**; Stefan Clerens[1]; John A. Proudman[2]; Peter D. Verhaert[2]; Lieve Geenen[1]; Frans Vandesande[1]; Lutgarde Arckens[1]; *[1]Katholieke Universiteit Leuven, Leuven, Belgium; [2]Agricultural Research Service, USDA, Beltsville, MD*

WPR2 321 **Mass Spectrometric Characterization of the Recombinant *Boophilus microplus* Bm95 Antigen: A Vaccine Candidate Against Cattle Tick.**; Luis J. González; Oscar Boué; Omar Farnós; Yazmín Guanche; Manuel Rodríguez; Ricardo Leonart; Gabriel Padrón; *Center for Genetic Engineering and Biotechnology, Havana, Cuba*

WPR2 322 **Characterization of a Recombinant Monoclonal Antibody (mAb) with a 12T Fourier Transform Mass Spectrometer**; Keith A Johnson[1]; Michael L. Easterling[2]; Christian B. Berg[2]; J. Paul Speir[2]; Jason C. Rouse[1]; *[1]Wyeth BioPharma, Andover, MA; [2]Bruker Daltonics, Inc., Billerica, MA*

WPR2 323 **Structural Characterization of Glycans Derived from Glycoproteins by Capillary Liquid Chromatography, Capillary Electrochromatography, and Mass Spectrometry**; Yehia Mechref; Jason Starkey; Milos V. Novotny; *Indiana University, Bloomington, IN*

WPR2 324 **Characterizing the Glycome of *Campylobacter jejuni* NCTC 11168**; John F. Kelly; Jean-Robert Brisson; Martin Young; Christine M. Szymanski; Susan M. Logan; Harold C. Jarrell; David C. Watson; Jianjun Li; Sebastien Voisin; *Institute for Biological Sciences, National Research Council of Canada, Ottawa, Canada*

WPR2 325 **Structural Glycoproteomics of Human Cerebrospinal Fluid**; Kristina Hakansson[1]; Mark R Emmett[1]; Alan G Marshall[1]; Pia Davidsson[2]; Carol L Nilsson[3]; *[1]National High Magnetic Field Laboratory, Tallahassee, Florida; [2]Goteborg University, Inst. of Clin. Neuroscience, Molndal, Sweden; [3]Goteborg University, Inst. of Medical Biochemistry, Goteborg, Sweden*

WPR2 326 **Characterization of Glycosylation of Recombinant Monoclonal Antibodies by ESI-MS; Comparison with MALDI-TOF and Ion-Exchange Chromatography**; Yelena Lyubarskaya; Damian Houde; Joseph Siemiatkoski; Samnang Tep; Rohin Mhatre; *Biogen, Inc., Cambridge, MA*

PROTEOMICS: BIOCHEMISTRY

WPS 327 **Toxicoproteomics of Bacterial Lipopolysaccharide: A TOF-TOF Study**; Joshua Dubin; Maribel Bruno; Jennifer Madenspacher; Barbara Wetmore; B. Alex Merrick; Kenneth Tomer; *National Institute of Environmental Heealth Sciences, Research Triangle Park, NC*

WPS 328 **Large-Scale Proteins Identification in the Protein Mixture Secreted by 3T3-L1 Preadipocytes and Adipocytes**; Hu Zhou; Shang-Yu Hong; Kan Liao; Qi-Chang Xia; Rong Zeng; *Shanghai Institutes for Biological Sciences, Shanghai, China*

WPS 329 **A Comprehensive Proteomic Approach to Determine the Composition of Mouse Cytomegalovirus Particles**; Benedikt M Kessler[1]; Lisa Kattenhorn[1]; Ryan Mills[2]; Alex Lomsadze[2]; Mark Borodovsky[2]; Hidde L Ploegh[1]; *[1]Harvard Medical School, Harvard University, Boston, MA; [2]Georgia Institute of Technology, Atlanta, GA*

WPS 330 **The Proteomics of Sialic Acid Utilization in Pathaogenic *Haemophilus***; Simon Allen[1]; Anthony Zaleski[2]; Michael A. Apicella[2]; Bradford W. Gibson[1]; *[1]Buck Institute for Age Research, Novato, CA; [2]Dept. of Microbiology, University of Iowa, Iowa City, IA*

WPS 331 **Characterization of Rainbow Trout Vitellogenin: Intact Protein, Tryptic and Cyanogen Bromide Digestion Analysis by ESI-MS and MALDI-MS**; Joseph H Banoub[1]; Pierre Thibault[3]; Alejandro M Cohen[2]; Atef Mansour[1]; David H Heeley[2]; Donna Jackman[2]; *[1]Department of Fisheries and Oceans, St. John's, Canada; [2]Memorial University of Newfoundland, St. John's, Canada; [3]Caprion Pharmaceuticals, Montreal, Canada*

WPS 332 **Use of Nanoflow-LC-MS/MS to Monitor Subcellular Fractionation in Gradient Density Centrifugation**; Thomas A. Shaler; Christopher H. Becker; *SurroMed, Inc., Mt. View, CA*

WPS 333 **Proteome Analysis of Oxidative Stress Response in Endothelial Cells**; Junko Kimata[1]; Tomoya Kinumi[2]; Noriko Noguchi[3]; Etsuo Niki[2]; *[1]Thermo Electron Co., Tokyo, Japan; [2]Human Stress Singal Res. Ctr, Natl. Inst. of Adv. Ind. Sci.& Technol., Osaka, Japan; [3]Human Stress Singal Res. Ctr, Natl. Inst. of Adv. Ind. Sci. Technol., Osaka, Japan; [4]RCAST, Univ. of Tokyo, Tokyo, Japan*

WPS 334 **Functional Analysis of Proteins with Activity-Based Proteomics**; Jane J. Wu; Mattew P. Patricelli; Eric Okerberg; Babak Samii; Emme Lin; *ActivX Biosciences, Inc, La Jolla, CA*

WPS 335 **Identification and Characterization of Rat Liver Cytochrome P450 Proteins Isolated From Enriched Rough and Smooth Endoplasmic Reticulum Subcellular Fractions**; Alexander W Bell[1]; Jacques Paiement[1]; Souad Lesimple[1]; Daniel Boismenu[1]; Marcos R Di Falco[1]; Jennifer N Gushue[1]; Annalyn Gilchrist[3]; Line Roy[1]; Orval A Mamer[3]; Rob Kearney[3]; John JM Bergeron[3]; *[1]Montreal Proteomics Centre, McGill University, Montreal, Canada; [3]Departement de Pathologie et Biologie Cellulaire,Universite de Montreal, Montreal, Canada*

WPS 336 **Proteomic Analysis of Motor Neurons Expressing SOD1 Mutations Linked With Lou Gehrig's Disease**; Kei Fukada; Fujian Zhang; Haining Zhu; *University of Kentucky, Lexington, KY*

WPS 337 **Global Protein-Expression Profile in Dependence on the Tumor Suppressor DPC4/Smad4: Differential Display of Two Gastrointestinal Carcinoma Cell Lines:**; Kai Stühler[1]; P.D. Dr. Stephan A. Hahn[2]; Prof. Dr. Helmut E. Meyer[1]; *[1]Medical Proteom-Center, Bochum, Germany; [2]Molekulare Gastroenterologische Onkologie, Bochum, Germany*

WPS 338 **Identification of Low Abundance Proteins in Brain Post-Synaptic Density**; Yuqin Wang[1]; Lu Yu[1]; Holger Husi[2]; Seth Grant[2]; Walter Blackstock[1]; Jyoti Choudhary[1]; *[1]Cellzome UK, Herts, UK; [2]University of Edinburgh, Edinburgh, UK*

WPS 339 **Comparative Proteomics of *Arabidopsis thaliana* Knockouts**; Clark J. Nelson; Adrian D. Hegeman; Amy C. Harms; Michael R. Sussman; *University of Wisconsin, Madison, WI*

WPS 340 **The Proteomics of the Dense Core Vesicle: Characterization of Biomolecules via Subcellular Fractionation, Chromatography, and Mass Spectrometry**; Mark J. Panepinto[1]; Eric A. Berg[1]; Mark E. McComb[1]; Richard E. Fine[1]; Jordan B. Fishman[2]; Catherine E. Costello[1]; *[1]Boston University School of Medicine Mass Spectrometry Resource, Boston, MA; [2]Atiantis Biopharmaceuticals, Marlboro, MA*

WPS 341 **Comparative Proteome Analysis by Two-Dimensional Gel-Electrophoresis in Combination with Mass Spectrometry for Determination of Treatment Time of MK-801 in a Rat Model of Schizophrenia.**; Linda Paulson[1]; Peter Martin[2]; Carol Nilsson[3]; Elisabeth Ljung[2]; Ann Westman-Brinkmalm[1]; Pia Davidsson[1]; *[1]Institute of Clinical Neuroscience, Goteborg University, Göteborg, Sweden; [2]Carlsson Research AB, Göteborg, Sweden;*

[3]Department of Medical Biochemistry, Goteborg University, Göteborg, Sweden

WPS 342 **Characterization of the Mitochondrial Proteome in Breast Cancer Cells**; Rachael F Strong; Catherine Fenselau; *University of Maryland at College Park, College Park, MD*

WPS 343 **Proteomic Analysis of Sperm From Drosophila Melanogaster**; Scott A. Busby[1]; Heather A. Steele[1]; Timothy L. Karr[2]; Jeffrey Shabanowitz[1]; Donald F. Hunt[1]; *[1]University of Virginia, Charlottesville, VA; [2]University of Bath, Bath, UK*

WPS 344 **Identification by Mass Spectrometry of Streptococcus Bovis Candidate Proteins Promoting Colon Cancerous Lesions**; Sophie Richert[1]; Jordane Biarc[2]; Danièle Thierse[1]; Marie Scholler-Guinard[2]; Jean-Paul Klein[2]; Alain Van-Dorsselaer[1]; Emmanuelle Leize-Wagner[1]; *[1]LSMBO ULP-CNRS, Strasbourg, France; [2]ULP-Faculte De Pharmacie, Illkirch-Graffenstaden, France*

WPS 345 **Differential Expression of Proteins in Response to Ceramide Mediated Stress Signals in Human Colon Cancer Cells by 2-D Gel MSMS and ICAT- nanoLC-MSMS**; Marianne Fillet[1]; Cécile Cren-Olivé[2]; Caroline Tokarski[2]; Franck Vandermoere[2]; Hubert Hondermark[2]; Christian Rolando[2]; *[1]Laboratoire de Chimie Médicale, Université de Liège, Liège, Belgique; [2]Université des Sciences et Technologies de Lille, UMR CNRS, Villeneuve d'Ascq, France*

WPS 346 **Proteomic Analysis of Plasmodium Falciparum Proteins Involved in Maurer's Structures**; Sophie Richert[1]; Laetitia Vincensini[2]; Thierry Rabilloud[3]; Catherine Braun-Breton[2]; Alain Van Dorsselaer[1]; Emmanuelle Leize-Wagner[1]; *[1]LSMBO ULP-CNRS, Strasbourg, France; [2]CNRS-URA-Pasteur, Paris, France; [3]CEA, Grenoble, France*

WPS 347 **Characterization of Host Response to *Yersinia* Pathogens**; Jenny L. Heidbrink; Brett A. Chromy; Arlene D. Gonzalez; Gloria A. Murphy; Loreen C. Zeller; Sandra L. McCutchen-Maloney; *Lawrence Livermore National Laboratory, Livermore, CA*

WPS 348 **Structural Identification of Biomolecules in Rat Amniotic Fluid Using Tandem Mass Spectrometry and Liquid Chromatography**; William L. Wood; Alexis C. Thompson; Mark B. Kristal; Troy D. Wood; *University at Buffalo, The State University of New York, Buffalo, NY*

WPS 349 **Characterization of the 46 to 57 kDa Proteins Found in Enriched Rough Membrane Endoplasmic Reticulum Fraction by Different Mass Spectrometry Technologies**; Daniel Boismenu[1]; Jacques Paiement[2]; Souad Lesimple[1]; Marcos R Di Falco[1]; Jennifer N Gushue[2]; Line Roy[1]; Orval A Mamer[3]; Robert E Kearney[4]; John J M Bergeron[5]; Alexander W Bell[1]; *[1]Montreal Proteomics Center/McGill University, Montreal, Canada; [2]Montreal Proteomic Center/McGill University, Montreal, Canada; [3]Montreal Proteomics Center, McGill University, Montreal, Canada; [4]Departement de Pathologie Cellulaire, Universite de Montreal, Montreal, Canada; [5]Dept de Pathologie et Biologie Cellulaire, Universite de Montreal, Montreal, Canada*

WPS 350 **Proteomic Identification of Extracellular Proteins Secreted by the Rice Blast Fungus**; V.S. Kumar Kolli; Jeremi Johnson; Ron Orlando; Alan Darvill; Peter Albersheim; Sheng-Cheng Wu; *University of Georgia, Athens, GA*

WPS 351 **Mass Spectrometric Analysis Procedure for Human Eotaxin**; Sung-Ho Kim[1]; Jeong-Hwa Lee[1]; Seon-Young Cho[1]; Jong-Shin Yoo[2]; Chun-Sik Park[3]; *[1]Soonchunhyang University, Aans, South Korea; [2]Korea Basic Science Institute, Daejeon, South Korea; [3]Soonchunhyang University Medical School, Buchon, South Korea*

PROTEOMICS: CANCER

WPT 352 **Novel Biomarkers for the Detection of Early Stage Ovarian Cancer**; Zhen Zhang[2]; Xiao-Ying Meng[1]; Pete Tornatore[1]; Robert Bast[3]; Daniel Chan[2]; Scot Weinberger[1]; Eric T. Fung[1]; *[1]Ciphergen Biosystems, Fremont, CA; [2]Johns Hopkins Medical Institutions, Baltimore, MD; [3]MD Anderson Cancer Center, Houston, TX*

WPT 353 **Charting the Progression of Disease by Mass Spectrometry: A Case of Prostate Cancer**; Stacey R. Oppenheimer; Janni Mirosevich; Robert J. Matusik; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*

WPT 354 **Discovery of Ovarian Cancer Biomarkers in Serum using nanoLC-FT-ICR Mass Spectrometry**; H. Robert Bergen, III[1]; William Cliby[2]; George Vasmatzis[3]; Kenneth L. Johnson[1]; Ann Oberg[4]; David C. Muddiman[1]; *[1]W.M. Keck FT-ICR Mass Spectrometry Laboratory, Mayo Clinic, Rochester, MN; [2]Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN; [3]Division of Experimental Pathology, Mayo Clinic, Rochester, MN; [4]Department of Biostatistics, Mayo Clinic, Rochester, MN*

WPT 355 **Identification of Novel Histone Post-translational Modifications**; Liwen Zhang; Michael A. Freitas; Ericka E. Eugeni; Mark R. Parthun; *The Ohio State Univeristy, Columbus, OH*

WPT 356 **Purification of Interacting Proteins from Samples of Limited Abundance Using Size-Selection Membrane Micropurification**; Thang T. Pham; Siyu Fu; *Ciphergen Biosystems, Fremont, CA*

WPT 357 **Analysis of Differential Protein Expression in Sera Obtained from Prostate Cancer Patients Undergoing Chemotherapy with a Goal Towards Understanding Humoral Drug Response**; Manoj Pal[1]; David M Lubman[1]; Linda Lin[2]; Tim Barder[2]; *[1]Dept. of Chemistry, University of Michigan, Ann Arbor, MI; [2]Eprogen Inc., Chicago, IL*

WPT 358 **Mass Spectrometry-Based Comparative Proteomic Studies of the Cytosolic Fractions of Doxorubicin Resistant And Susceptible MCF-7 Breast Cancer Cells**; Marion Gehrmann; Yetrib Hathout; Catherine Fenselau; *University of Maryland, College Park, MD*

WPT 359 **SELDI-TOF Mass Spectrometry in Diagnostic Oncoproteomics of Prostate Cancer.**; John Roboz; Steven Lehrer; Shouxun Zhao; Hilda Ding; Edward Diamond; James,F. Holland; *Mount Sinai School of Medicine, New York, NY*

WPT 360 **Defining Vascular Proteome with Multiple Analytical Techniques Yields More Complete Database**; Yan Li; *Sidney Kimmel Cancer Center, San Diego, CA*

WPT 361 **Protein Profiling of Metastatic and Nonmetastatic Breast Cancers Using Laser Microdissection and 2D LC Coupled with a High Mass Accuracy Q-Tof Mass Spectrometer**; Anthony G Sullivan[1]; Dayin Lin[2]; Denise Papucnik[1]; Richard Katenhusen[1]; Stephen Russell[1]; Shane Ottmann[3]; Craig Shriver[3]; Anders L Lund[2]; Richard I Somiari[1]; *[1]Windber Research Institute, Windber, PA; [2]Waters Corporation, Dublin, CA; [3]Walter Reed Army Medical Center, Washington, DC*

WPT 362 **Identification of Low-Abundance Cellular Kinases Using Activity-Based Profiling and Tandem Mass Spectrometry**; Jennie R Lill; Jennifer E Hanson; Yongsheng Liu; Wen Z Gai; *ActivX BioSciences Inc., La Jolla, CA*

WPT 363 **Development of a Proteome Marker Model for Ovarian Cancer Using Direct Analysis of Diluted Serum by Automated Nanoelectrospray TOFMS**; Gary A.

Schultz[1]; Sheng Zhang[1]; Kevin Howe[1]; Colleen Van Pelt[1]; Jack D. Henion[1]; Emanuel F. Petricoin III[5]; Zhiqi Hao[1]; Thomas P. Conrads[4]; Lance Liotta[2]; Timothy D. Veenstra[4]; Ben A. Hitt[3]; Emanuel Petricoin[2]; Peter J. Levine[3]; *[1]Advion BioSciences, Inc., Ithaca, NY; [2]FDA-NCI Clinical Proteomics Program, NCI, NIH, Bethesda, MD; [3]FDA-NCI Clinical Proteomics Program, NCI, NIH, Ithaca, NY; [4]Correlogic Systems, Inc., Bethesda, MD; [5]SAIC-Frederick, Frederick, MD*

WPT 364 **Strategies for Identification of Proteins Enriched on Protein Chips and Analyzed by SELDI-TOF**; Eric C-C Yang[1]; Jingzhong Guo[1]; Georg Diehl[1]; Leroi DeSouza[1]; Mary Joe Rodrigues[2]; Maria G Mendes[2]; K.W. Michael Siu[1]; Alex D Romaschin[3]; Terence C Colgan[2]; Cecilia Bolarinho[2]; *[1]Chemistry & Centre for Research in Mass Spectrometry, York University, Toronto, Canada; [2]Mount Sinai Hospital and University of Toronto, Toronto, Canada; [3]Toronto Medical Labs and University of Toronto, Toronto, Canada*

WPT 365 **Studies for Interlysate Comparison of Expressional Differences of Ovarian Cancer Cell Protein Using a Mass Mapping Technique**; Hyeyeung Kim[1]; Haixing Wang[1]; Maureen T. Kachman[3]; Donald R. Schwartz[2]; David M. Lubman[1]; *[1]Department of Chemistry, University of Michigan, Ann Arbor, MI; [2]Department of Pathology, School of Medicine, Univeristy of Michigan, Ann Arbor, MI; [3]MLSC-Core Technology Alliance, University of Michigan, Ann Arbor, MI*

WPT 366 **Global Internal Standard Technology Applied to Ovarian Cancer Protein Biomarker Discovery**; Kenneth L. Johnson[1]; George Vasmatzis[2]; William A. Cliby[3]; David C. Muddiman[1]; *[1]W.M. Keck FT-ICR Mass Spectrometry Laboratory, Mayo Clinic, Rochester, MN; [2]Division of Experimental Pathology, Mayo Clinic, Rochester, MN; [3]Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN*

WPT 367 **A MALDI-TOF and H/D Exchange Based Approach to Facilitate the Identification and Characterization of Protein Biomarkers in Lung Cancer**; Michael Z Wang[1]; Jagat Shetty[1]; Brandon Howard[2]; Michael J Campa[2]; Edward F Patz[2]; Michael C Fitzgerald[1]; *[1]Department of Chemistry, Duke University, Durham, NC; [2]Department of Radiology, Duke University Medical Center, Durham, NC*

WPT 368 **Automated Deconvolution of LC-ESI-TOF-MS Datasets: A Powerful New Tool for Proteomics**; Nathan S. Buchanan[1]; Rick L. Hamler[1]; Peter E. Leopold[2]; David M. Lubman[1]; *[1]University of Michigan, Ann Arbor, MI; [2]Bioanalyte, Inc., Portland, ME*

WPT 369 **Proteome Analysis of Laser Capture Microdissection Breast Tumor Samples Using ICAT Labeling and Nano-LC-MS/MS**; Li Zang[1]; William S. Hancock[1]; Alexander R. Ivanov[1]; Barry L. Karger[1]; Darryl E. Palmer-Toy[2]; Dennis C. Sgroi[2]; *[1]Barnett Institute, Department of Chemistry, Northeastern University, Boston, MA; [2]Barnett Institute, Northeastern University, Boston, MA*

PROTEOMICS: LABELING

WPU 370 **Identification and Relative Quantitation of Protein Mixtures by Enzymatic Digestion Followed by Two-Dimensional Liquid Chromatography – Tandem Mass Spectrometry**; Dirk Chelius; Terry Zhang; Guanghui Wang; Rong-Fong Shen; *Thermo Finnigan, San Jose, CA*

WPU 371 **New Alkylating Reagents Allowing Simultaneous Biochemical Characterisation and Relative Quantitation of Proteins**; Carla Pasquarello; Jennifer A. Burgess; Jean-Charles Sanchez; Denis F. Hochstrasser; Garry L. Corthals; *Geneva Proteomics Research Centre, Geneva University Hospital, Geneva, Switzerland*

WPU 372 **A Novel Approach for Quantitative Proteomics – Multiplexed ICPL**; Alexander Schmidt; Josef Kellermann; Cornelia Ciosto; Hakan Sarioglu; Friedrich Lottspeich; *Max-Planck-Institute of Biochemistry, Martinsried, Germany*

WPU 373 **Peptide Mapping of the Human Androgen Receptor Ligand-Binding Domain Using Mass Spectrometry**; Zengru Wu[1]; Casey Bohl[1]; Natalie Goldberger[1]; Duane Miller[2]; James Dalton[1]; *[1]College of Pharmacy, The Ohio State University, Columbus, OH; [2]College of Pharmacy, University of Tennessee, Memphis, TN*

WPU 374 **Protein Differential Expression Analyses in Yeast after Salt Stress Using SDS-PAGE and Cleavable ICAT Reagent**; Hanno Steen; Jiaxu Li; Steven P Gygi; *Harvard Medical School - Department of Cell Biology, Boston, MA*

WPU 375 **Combining Separation Methods and Non-Isotopic Labeling in Comparative Proteomics**; Richard L. Beardsley; James P. Reilly; *Dept. of Chemistry, Indiana University, Bloomington, IN*

WPU 376 **Comparative Proteomic Analysis of Complex Mixtures**; Ian I Stewart[1]; Theo Goh[1]; Sam Scozzaro[1]; Henry S Duewel[1]; Chris Orsi[1]; Moyez Dharsee[1]; Zhe Wang[1]; Olga Ornatsky[1]; Karen Root[2]; Mark Ross[2]; Jennifer Caldwell[2]; Jarrod A Marto[2]; *[1]MDS Proteomics Inc, Toronto, Canada; [2]MDS Proteomics Inc, Charlottesville, VA*

WPU 377 **High Throughput Platform Suitable for Common Proteomic Techniques**; Jodi M. Zobrist; Justin Wildsmith; Richard J. Mehigh; Kelly L. Foster; John G. Dapron; Tom C. Hassell; William K. Kappel; *Sigma-Aldrich Biotechnology, St. Louis, MO*

WPU 378 **Application of Proteomics to the Identification of Surrogate Markers for Huntington's Disease in Serum and Cerebrospinal Fluid**; Kelly R. Vaughn; Julian D. Watts; Hui Zhang; Eugene C. Yi; David R. Goodlett; Ruedi Aebersold; *Institute for Systems Biology, Seattle, WA*

WPU 379 ***In vivo* Stable Isotope Labeling of Multicellular Model Organisms C. elegans and Drosophila for Quantitative Proteomics**; Jeroen Krijgsveld[1]; Rene F. Ketting[2]; Tokameh Mahmoudi[3]; Janik Johansen[1]; Peter Verrijzer[3]; Ronald H. Plasterk[2]; Albert J. R. Heck[1]; *[1]Biomol. Mass Spectrometry, Utrecht University, Utrecht, Netherlands; [2]Hubrecht Laboratory, Netherlands Institute for Developmental Biology, Utrecht, Netherlands; [3]Molecular and Cellular Biology, LUMC Leiden, Leiden, Netherlands*

WPU 380 **Pulsed Plasma Polymer Modified Surfaces for Bio-Selective MALDI Probe Preparation**; Gary R. Kinsel; Meiling Li; Ji Zhang; Richard B. Timmons; *University of Texas, Arlington, TX*

WPU 381 **Affinity Purification of Crosslinked Peptides**; Michael B. Strader; Robert L. Hettich; Gregory B. Hurst; Stephen J. Kennel; Patricia K. Lankford; *Oak Ridge National Laboratory, Oak Ridge, TN*

WPU 382 **Reduction of Sample Complexity by Metal-Affinity Isolation of Histidine-Containing Peptides for Identification of Proteins in Complex Mixtures**; Niklas Gustavsson; Ekaterina Mirgorodskaya; Hans Lehrach; Johan Gobom; *Max Planck Institute for Molecular Genetics, Berlin, Germany*

WPU 383 **Precipitation of Large Proteins from Serum with Organic Solvents**; Andrew J. Alpert[1]; Ashok K. Shukla[2]; *[1]PolyLC Inc., Columbia, MD; [2]Glygen Corp., Columbia, MD*

WPU 384 **Quantitation of Human GST-A in Complex Matrix by LC –ESI-MS/MS with Signature Peptide**; Fagen Zhang; Michael J. Bartels; *The Dow Chemical Company, Midland, MI*

WPU 385 **Large Scale Quantitative Profiling of the *Mycobacterium tuberculosis* Proteome**; Kwasi G. Mawuenyega[1]; Sheng Gu[1]; Karen Dobos[2]; John T. Belisle[2]; Jin Chen[1]; Morton Bradbury[3]; Andrew Bradbury[1]; Xian Chen[1]; *[1]Bioscience Division, Los Alamos National Laboratory, Los Alamos, NM; [2]Dept of Microbiology, Immunology & pathology, Colorado State Univ., Ft. Collins, CO; [3]Dept of Biochem & Molecular Biology, Univ. of California, Davis, CA*

WPU 386 **Novel Fluorescin Affinity Chromatography for Proteomic Analysis using Mass Spectrometry**; Jue-Liang Hsu; Shu-Hui Chen; *Department of Chemistry, National Cheng-Kung University, Tainan, Taiwan, ROC*

WPU 387 **Approximate Relative Abundance of Proteins Within a Mixture Determined From LC-MS Data**; Juri Rappsilber; Yasushi Ishihama; Leonard Foster; Gerhard Mittler; Matthias Mann; *CEBI, University of Southern Denmark, Odense, Denmark*

WPU 388 **Determination of Glutathione Depletion-Dependent Thiol Oxidation of Mitochondrial Complex I Upon Oxidative Stress Using Stable Isotope Alkylating Reagents**; Birgit Schilling; Bharath Srinivas; Richard H. Row; Julie K. Andersen; Bradford W. Gibson; *Buck Institute for Age Research, Novato, CA*

WPU 389 **Derivatization of Peptides for Analysis by High-Throughput LC-MALDI-TOF/TOF MS**; Anna Pashkova; Xin Zhang; Roger Giese; Barry L. Karger; *Barnett Institute, Northeastern University, Boston, MA*

WPU 391 **Quantitative Analysis of the Responses of Yeast Proteome Under Challenging Conditions**; Heng Jiang; Ann English; *Concordia University, Montreal, Canada*

WPU 392 **Absolute Quantification of Prostate Specific Antigen in Artificial Serum by LC-MS/MS Using Isotope Labeled Synthetic Peptides and Proteolytic Digestion**; David R. Barnidge[1]; David C. Muddiman[1]; George G. Klee[2]; Marcia K. Goodmanson[2]; *[1]W.M. Keck FT-ICR Mass Spectrometry Laboratory, Mayo Clinic, Rochester, MN; [2]Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, MN*

WPU 393 **Identification and Quantification of Biomolecules and Determination of Binding Specificities Using Ion Energy Loss Spectrometry, Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry and Accelerator Mass Spectrometry**; Magnus Palmblad; Patrick G Grant; Sharon J Shields; Darren J Hillegonds; Graham Bench; John S Vogel; *Lawrence Livermore National Laboratory, Livermore, CA*

WPU 394 **Encoding Quantitative Proteomic Data Within MS/MS Spectra**; Richard S. Johnson; Min Shen; Lowell Ericsson; *Amgen, Seattle, WA*

PROTEOMICS: MEDICAL APPLICATIONS

WPV 395 **Proteomic Analysis by MALDI-MS-MS and NanoESI MS-MS: Protein Expression Changes in Muscle Tissue Growth Induced by Selective Androgen Receptor Modulator Response**; John Hughes[1]; Showchien Hsieh[1]; Tianshun Xu[1]; Kathleen MacKenzie[1]; Roel van der Schors[2]; *[1]GlaxoSmithKline, Research Triangle Park, NC; [2]Vrije University, Amsterdam, Netherlands*

WPV 396 **In vivo Proteome Mapping of Microvascular Endothelium in Rat Lung**; Eberhard Durr[1]; Yan Li[1]; Lucy Carver[1]; Jingyi Yu[1]; Karolina Krasinska[1]; Phil Oh[1]; John R. Yates[2]; Jan E. Schnitzer[1]; *[1]Sidney Kimmel Cancer Center, San Diego, CA; [2]The Scripps Research Institute, San Diego, CA*

WPV 397 **Proteome Analysis of Oxidative Stress Stimulated by Diesel Exhaust Particles in the Macrophage**; Gary G. Xiao[2]; Sheng Yin[2]; James L. Kerwin[2]; Rachel R. Ogorzalek Loo[2]; Joseph A. Loo[2]; Ning Li[1]; Andre E. Nel[1]; *[1]University of California Med-CIA, Los Angeles, CA; [2]UCLA, Proteomics and Mass Spectrometry Center, Los Angeles, CA*

WPV 398 **Quantitative Analysis of Plasma Proteome From Atopic Dermatitis Model Mice to Identify the Disease Marker Proteins**; Takao Kawakami; Hisae Anyoji; Atsushi Ogiwara; Toshihide Nishimura; *Clinical Proteome Center, Tokyo Medical University, Tokyo, Japan*

WPV 399 **Proteomic Analysis of Retinoic Acid-Induced Differentiation of Human Acute Promyelocytic Leukemia Cells (NB4) by 2D-DIGE and MALDI-TOF-TOF Mass Spectrometry**; Daojing Wang[1]; Gurmil Gendeh[2]; Katherine Willams[3]; Ronald H. Jensen[3]; Maria G. Pallavicini[3]; *[1]Lawrence Berkeley National Laboratory, Berkeley, CA; [2]Amersham Biosciences, Sunnyvale, CA; [3]University of California, San Francisco, CA*

WPV 400 **Analysis of the Human Sputum Proteome**; Begona Casado[1]; Lewis Pannell[2]; Joshua Murray[3]; Paolo Iadarola[4]; James N Baraniuk[5]; *[1]Georgetown University, Washington, DC; [2]University of South Alabama, Mobile Alabama, Alabama; [3]Universita' di Pavia, Pavia, Italy*

WPV 401 **Biomarker Detection in the Tears of Diabetes Patients**; Brad Walsh[1]; Mark Willcox[2]; Tom Slyker[3]; *[1]Proteomeca, Pty. Ltd., Harbord, Australia; [2]Cornea and Contact Lens Research Unit, UNSW, Sydney, Australia; [3]Bio-Rad Laboratories, Hercules, CA*

WPV 402 **Use of High Throughput Proteomics to Determine Asymmetric Mitotic Stem Cell Markers**; Heidi A Geiser[1]; Janice A Lansita[2]; James L Sherley[2]; Vernon N Reinhold[1]; *[1]University of New Hampshire, Durham, NH; [2]Massachusetts Institute of Technology, Cambridge, MA*

WPV 403 **Identification of Putative Cell Surface Protein From P.acnes by Mass Spectrometry**; Yanni Zhang; Jean-Francois Maisonneuve; Ajay Bhatia; John Douglas; Steven Wang; Yasir Skeiky; Jennifer Mitcham; Michael Lodes; Tom Vedvick; David Persing; *Corixa, Seattle, WA*

WPV 404 **Liquid Chromatography of Intact Proteins Combined With Peptide Mass Fingerprinting Increases the Overall Flexibility for Cardiac Proteome Analysis From a Swine Model of Heart Failure**; Heather A Brown; Jennifer E Van Eyk; Irina Neverova; *Queen's University, Kingston, Canada*

WPV 405 **High-Throughput Molecular Diagnosis of Disease States Using Direct-Tissue MALDI MS Analysis**; Sarah A. Schwartz[1]; Bill White[1]; Huiming Li[1]; Jason Moore[1]; Yu Shyr[1]; Robert Weil[2]; Richard M. Caprioli[1]; *[1]Vanderbilt University Medical Center, Nashville, TN; [2]National Institutes of Health, Bethesda, MD*

WPV 406 **Insights Into Phospholipidosis-Induced Changes in the Hepatocyte Proteome**; Ileana M. Cristea[1]; Elisabeth George[2]; Su Evans[2]; Simon J. Gaskell[1]; *[1]Michael Barber Centre for Mass Spectrometry, UMIST, Manchester, United Kingdom; [2]Cellular and Biochemical Toxicology, GlaxoSmithKline, Ware, United Kingdom*

WPV 407 **Mining Biomarkers in Human Sera Using Proteomic Tools**; Rulin Zhang[1]; Lisa Barker[1]; Deborah Pinchev[2]; John Marshall[1]; Michele Rasamoelisolo[1]; Chris Smith[1]; Inga Kireeva[1]; Leslee Ingratta[1]; Louis DeGennaro[1]; George Jackowski[1]; *[1]SynX Pharma Inc., Toronto, Canada; [2]University of Guelph, Guelph, Canada*

WPV 408 **MS-Identification and Biological Characterization of an Erythropoietin-Dependent Erythroid Cell Stimulating Protein of Human Bone Marrow Endothelial Cells.**; Marcos R Di Falco[1]; Luis F Congote[1]; Mike Aguiar[2]; Robert Masse[2]; Bernard F Gibbs[2]; *[1]McGill University, Montreal, Canada; [2]MDS Pharma Services, Montreal, Canada*

WPV 409 **Proteomic Analysis of Human Tears: In Response to Ocular Surface Injury**; Lei Zhou[1]; Liqun Huang[2]; Roger W Beuerman[3]; Sam FY Li[2]; FT Chew[4]; Leonard PK Ang[5]; Donald Tan[5]; *[1]Singapore Eye Research Institute, Singapore, Singapore; [2]Dept. Chemistry, National University of Singapore, Singapore, Singapore; [3]LSU Eye Center, LSUHSC, New Orleans, LA; [4]Dept. Biological Science, National University of Singapore, Singapore, Singapore; [5]Singapore National Eye Centre, Singapore, Singapore*

WPV 410 **Identification of TIMP-1 Induced Genes in Human Liver Cells Using Difference Gel Electrophoresis (DIGE)**; Stephan Poetsch[1]; Bruno Bacher[1]; Bettina Jansen[2]; Elke Roeb[2]; *[1]Amersham Biosciences Europe, D-79111 Freiburg, Germany; [2]Medizinische Klinik der RWTH Aachen, D-52057 Aachen, Germany*

WPV 411 **Integrated Analysis of the Human Cardiac Proteome and Phosphoproteome**; Cristian Ruse[1]; Michael Kinter[1]; Meredith Bond[1]; *[1]Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH; [2]Case Western Reserve University School of Medicine, Cleveland, OH*

WPV 412 **Global and Glyco-Specific Quantitative Proteomic Analyses of Bronchoalveolar Lavage Fluid. Tools for Understanding Acute Respiratory Distress Syndrome.**; Samuel M. Donohoe[1]; Lynn M. Schnapp[2]; Eugene C. Yi[1]; Hui Zhang[1]; David R. Goodlett[1]; Ruedi Aebersold[1]; *[1]Institute for Systems Biology, Seattle, WA; [2]University of Washington School of Medicine, Seattle, WA*

WPV 413 **Optimized SELDI Profile of Rat Serum**; Avalyn E. Lewis[1]; Charles R. Iden[1]; *[1]SUNY-Stony Brook, Stony Brook, NY; [2]Department of Pharmacology, SUNY, Stony Brook, NY*

WPV 414 **Catalogue of Soluble Proteins in the Human Vitreous Humor By 1D-SDS/PAGE and Iontrap Tandem Mass Spectrometry**; Toyofumi Nakanishi; Reiko Koyama; Tsunehiko Ikeda; Akira Shimizu; *Osaka Medical College, Takatsuki, JAPAN*

PROTEOMICS: NEW AND IMPROVED METHODS

WPW 415 **Using Genome Fingerprint Scanning for Human Gene Identification**; Michael S. Wisz; Michael C. Giddings; *University of North Carolina, Chapel Hill, NC*

WPW 416 **High-Throughput Proteomic Analysis of Plasma Membrane Proteins From Breast Cancer Cell Lines**; Keiryn L. Bennett; Eva C. Ø. Nielsen; Vibeke Poulsen; Dan B. Kristensen; Alexandre V. Podtelejnikov; Soren Schandorff Gade-Jorgensen; Christian Ahrens; Mark A. Scheideler; Jacek R. Wisniewski; *MDS Proteomics, Odense, Denmark*

WPW 417 **Combining Spectrum Matching and *de novo* Sequencing: An Advantageous Approach to the Interpretation of MS/MS Spectra**; Mark W. Duncan[1]; Kim Fung[1]; Srdjan Askovic[1]; S Killcoyne[1]; J Jasinski[1]; S Hunsucker[1]; Maxin Tsypin[2]; Heinrich Roder[2]; *[1]BMSF, School of Pharmacy,University of Colorado Health Sciences Center, Denver, CO; [2]Efeckta Technologies, Steamboat Springs, CO*

WPW 418 **Evaluation of Cross-Linking Followed by Mass Spectrometry Analysis for the Detection of Membrane Protein Associations**; Oliver K Bernhard[1]; Margaret M Sheil[2]; Tony L Cunningham[1]; *[1]Centre for Virus Research, WMI, University of Sydney, Sydney, Australia; [2]Department of Chemistry, University of Wollongong, Wollongong, Australia*

WPW 419 **An Integrated Approach for Proteomic Analysis Reducing the Workload of Low-Throughput Instruments**; Peter Hufnagel[1]; Ulrike Schweiger-Hufnagel[1]; Markus Lubeck[1]; Detlev Suckau[1]; Oksana Gvozdyak[2]; Axel Ducret[3]; Hanno Langen[3]; *[1]Bruker Daltonik, Bremen, Germany; [2]Bruker Daltonics, Billerica, MA; [3]F. Hoffmann-La Roche, Basel, Switzerland*

WPW 420 **An (Off–Line HPLC)–(Orthogonal Injection MALDI)–(QqTOFMS) Instrument Particularly Useful for the Analysis of Post-Translational Modifications. Example: Identification of Two Phosphorylated Sites in Tryptic Peptides From the ABRF PRG03 Sample (Bovine Protein Disulphide Isomerase).**; Oleg Krokhin[1]; Keding Cheng[2]; Natalia Bykova[1]; Werner Ens[1]; John Wilkins[2]; Kenneth Standing[1]; *[1]University of Manitoba, Department of Physics and Astronomy, Winnipeg, Canada; [2]Manitoba Centre for Proteomics, Winnipeg, Canada*

WPW 421 **Frequency Analysis of MALDI-TOF Spectra for Noise Filtering and Internal Calibration**; Thomas Kreitler; Eryk Wolski; Ekaterina Mirgorodskaya; Hans Lehrach; Johan Gobom; *Max Planck Institute for Molecular Genetics, Berlin, Germany*

WPW 422 **Extending the Coverage of Proteomic Samples by Nano LC/MS/MS and Advanced Information Dependent Acquisition (IDA) Approaches**; Brian J. Boucher; Andy J. Tomlinson; Brian L. Williamson; Cheryl E. Murphy; *Applied Biosystems, Framingham, MA*

WPW 423 **Identification of Oxidant Sensitive Cysteine-Containing Proteins by Mass Spectrometry**; Mahadevan Sethuraman[1]; Tyler Heibeck[1]; Takeshi Adachi[1]; Amareth Lim[1]; Mark E McComb[1]; Catherine E Costello[1]; Richard A Cohen[1]; *[1]Boston University School of Medicine, Boston, MA; [2]Vascular Biology Unit, Boston University School of Medicine, Boston, MA*

WPW 424 **Parallel Monitoring of Protein and Drug Expression in Tissues by MALDI MS**; Michelle L. Reyzer; Jennifer A. Pietenpol; Carlos L. Arteaga; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*

WPW 425 **Improved Mudpit Proteomics Analyses by Combined Sequest and Mascot Database Searching**; Katheryn A Resing; Karen Meyer-Arendt; Lauren Aveline-Wolf; Alex Mendoza; Natalie Ahn; *University of Colorado, Boulder, CO*

WPW 426 **Analysis of Liquid Chromatography Fractions Using the Molecular Scanner**; Tim Nadler; Barrie Wagenfeld; Yulin Huang; Robert Lotti; Carlton Paul; George Vella; *Applied Biosystems, Framingham, MA*

WPW 427 **HPLC Profiling in Proteomic Analysis of Monocyte to Macrophage Differentiation**; Leticia Cano[1]; Andrew Alpert[2]; Terry D Lee[1]; Susan Kovats[1]; *[1]City of Hope Graduate School, Duarte, CA; [2]PolyLC Inc., Columbia, MD*

WPW 428 **Pep-Miner: High Throughput Proteomics Made Easy**; Ilan Beer[1]; Eilon Barnea[1]; Guy Korland[1]; Moriel Lechtman[1]; Itay Maman[1]; Tamar Ziv[2]; Arie Admon[2]; *[1]IBM Haifa Research Laboratory, Haifa, Israel; [2]Technion - Israel Institute of Technology, Haifa, Israel*

WPW 429 **Non-Redundant Mass Spectrometry (NRMS): Improving Data Coverage and Quality in Proteomics**; Alexander Scherl[1]; Patrice Francois[2]; Veronique Converset[1]; Manuela Bento[2]; Jean-Charles Sanchez[1]; Denis F Hochstrasser[1]; Jacques Schrenzel[2]; Garry L Corthals[1]; *[1]Geneva Proteomics Research Centre, Geneva University Hospital, Geneva, Switzerland; [2]Division of Infectius Diseases, Geneva University Hospital, Geneva, Switzerland*

WPW 430 **Control Software for the Automated Identification of Protein Mixtures by Orthogonal MALDI Mass Spectrometry**; Keith Ashman[1]; Chris Lock[1]; Adam Lau[1]; Calvin Lau[1]; Pavel Metalnikov[2]; *[1]MDS Sciex, Concord, Canada; [2]Samuel Lunenfeld Institute, Toronto, Canada*

WPW 431 **MALDI QIT ToF MSn is a Versatile Tool for the Identification of Disease-Relevant Protein Modifications in Human Proteome Research.**; Cornelia Koy[1]; Stefan Mikkat[1]; Martin Resch[2]; Emmanuel Raptakis[3]; Chris Sutton[3]; Koichi Tanaka[3]; Michael O. Glocker[1]; *[1]Proteome Center Rostock, Rostock, Germany; [2]Shimadzu Biotech, Duisburg, Germany; [3]Shimadzu Biotech, Manchester, UK*

WPW 432 **Guilty Until Proven Innocent: Protein Identifications Based on Non-Tryptic Peptides in Trypsin Peptide-Based Proteomics Experiments are Suspect**; Kenneth C. Parker; Brian L. Williamson; Jason Marchese; Peter Juhasz; Stephen Martin; *Applied Biosystems, Framingham, MA*

WPW 433 **Off-Line Multi Dimensional LC/MS as Effective and Flexible Tool for Proteomics Research**; Ralf Moritz; Edgar Nägele; Patric Hörth; Martin Vollmer; *Agilent Technologies, Waldbronn, Germany*

WPW 434 **Use of Mass Spectrometry and Date Base Search for Identification of Proteins From Organisms With Unsequenced Genomes**; Maja Matis[1]; Marija Zakelj-Mavric[2]; Jasna Peter-Katalinic[3]; *[1]IMMAG, Medical College of Georgia, Augusta, GA; [2]Institute of Biochemistry, Medical Faculty, University of Ljubljana, Ljubljana, Slovenia; [3]Institute for Medical Physics and Biophysics, University of Münster, Münster, Germany*

WPW 435 **Dependence of Database Search Score and Sequence Coverage Attained on Ionization Mode and Ionization Polarity**; Paul M Bigwarfe Jr[1]; Troy D Wood[1]; *[1]State University of New York, Buffalo, NY; [2]Roswell Park Cancer Institute, Buffalo, NY*

WPW 436 **A New Algorithm to Correlate MS/MS Spectra with Theoretical Peptide Fragmentations**; Nehal Pfeiffer; Fernando Maroto; Colette Rudd; Amy Zumwalt; Jim Shofstahl; *Thermo Electron, San Jose, CA*

WPW 437 **Implementation and Performance of a Protein Identification Algorithm for Intact Protein MALDI/TOF/TOF Spectra**; Kevin L Schey; John Schwacke; *Medical University of South Carolina, Charleston, SC*

WPW 438 **Universal Deposition Device for Off-line Coupling of LC to MALDI MS and MS/MS**; Tomas Rejtar[1]; Hsuan-shen Chen[2]; Eugene Moskovets[1]; Lingyun Li[2]; Viktor Andreev[1]; Barry L. Karger[1]; *[1]Barnett Institute, Boston, MA; [2]Department of Chemistry, Northeastern University, Boston, MA*

WPW 439 **Direct from Polyacrylamide Gel Infrared Laser Desorption Ionization**; Yichuan Xu; Mark W. Little; David J. Rousell; Kermit K. Murray; *Louisiana State University, Baton Rouge, LA*

WPW 440 **Use of Support Vector Machine Learning for Evaluation of Peptide MS/MS Spectra and SEQUEST Scores in Shotgun Peptide Sequencing.**; D.C. Anderson[1]; Weiqun Li[2]; William Stafford Noble[3]; *[1]Institute of Molecular Biology, University of Oregon, Eugene, OR; [2]Rigel Inc., South San Francisco, CA; [3]Dept. of Genome Sciences , University of Washington, Seattle, WA*

WPW 441 **An Imaging Approach for PTM Discovery by Using An Automated Information Dependent LC/MALDI QqTOF MS Acquisition System**; Xu Guo; Min Yang; Feng Zhong; *MDS SCIEX, Toronto, Canada*

WPW 442 **Improving Confidence of Automated Protein Identification Using Rule-Based Assessment of Probabilistic Database Search Results**; Markus Schirle; Marcus Bantscheff; Manfred Raida; Markus Boesche; Bernhard Kuster; *Cellzome AG, Heidelberg, Germany*

WPW 443 **Development and Validation of an *in-vivo* Inhibition Assay for Bacterial Methionine Aminopeptidase by SELDI-TOF Mass Spectrometry**; Songtao Zhou; Gerlinde Layh-Schmitt; Kenneth Greis; *Procter & Gamble Pharmaceutical, Mason, OH*

WPW 444 **Protein Mass Mapping Combined with MS-Derived Protein Mass Database for Bacterial Identification**; Lidan Tao; Xinlei Yu; Liang Li; *University of Alberta, Edmonton, Canada*

WPW 445 **The Accuracy of Protein Identification Using Chemically Assisted Fragmentation (CAF) and Tandem Mass Spectrometry**; Thomas Keough[1]; Martin P. Lacey[1]; Dionne P. Swift[1]; Kenton D. Juhlin[1]; Paul E. Correa[2]; *[1]The Procter & Gamble Company, Cincinnati, OH; [2]P&G Pharmaceuticals, Cincinnati, OH*

WPW 446 **Complex Protein Mixture Analysis by LC-MALDI-TOF Hybrid Mass Spectrometry: Evaluating the Performance and Potential for High Throughput Proteomic Analysis**; Timothy J. Griffin[1]; Xiao-jun Li[1]; Chris M. Lock[2]; Iryna Chervetsova[2]; Marcello Marelli[1]; John D. Aitchison[1]; Hui Zhang[1]; Ruedi Aebersold[1]; *[1]Institute for Systems Biology, Seattle, WA; [2]MDS Sciex, Concord, Canada*

WPW 447 **Intensity-Based Probability Scorer for Peptide Tandem Mass Spectra**; Yingying Huang[1]; Joseph M. Triscari[2]; Gordon A. Anderson[3]; Ljiljana Pasa-Tolic[3]; Vicki H. Wysocki[1]; Richard D. Smith[3]; Mary S. Lipton[3]; *[1]University of Arizona, Tucson, AZ; [2]Science Application International Corporation, Tucson, AZ; [3]Pacific Northwest National Laboratory, Richland, WA*

WPW 448 **Iterative Exclusion and Directed MS-MS from Trace-Level Protein Digests of Differentiated Cell Extracts**; Joseph Pok Man Hui; Sylvain Tessier; Heather Butler; Jonathan Badger; Paul Kearney; Alain Carrier; Pierre Thibault; *Caprion Pharmaceuticals, Montreal, Canada*

WPW 449 **Comprehensive Proteome Analysis by Multi-Dimensional Separation Coupled to High Mass Accuracy MALDI-MS and MALDI-MS/MS**; Hsuan-shen Chen; Tomas Rejtar; Eugene Moskovets; Victor Andreev; Barry L. Karger; *Barnett Institute and Department of Chemistry, Northeastern University, Boston, MA*

WPW 450 **The Use of Photochemical Cross-linking and Mass Spectrometry to Investigate Proteins Interacting with DNA Polymerase η**; Cameron O. Scarlett; Mark C. Hall; Jody Havener; Nana Nikolaishvili; J. Michael Dial; Marila Cordeiro-Stone; Stephen Chaney; Christoph H. Borchers; *University of North Carolina, Chapel Hill, NC*

WPW 451 **Use of Involatile Salts to Enhance Peptide Separation and MS Performance in LCMALDI Experiments**; Hari Nair; Xiangping Zhu; Igor Smirnov; Ioannis Papayannopoulos; Darryl Pappin; Andy Tomlinson; *Applied Biosystems, Framingham, MA*

WPW 452 **PMF Meta-Search - A New Approach That Enables Sophisticated MS Protein Identification in High-Throughput Proteomics**; Daniel C. Chamrad[1]; Gerhard Koerting[1]; Herbert Thiele[2]; Helmut E. Meyer[1]; Martin Blueggel[1]; *[1]Protagen AG, Dortmund, Germany; [2]Bruker Daltonik GmbH, Bremen, Germany*

WPW 453 **Large-Scale Differential Proteomic Analysis of Hep G2 cells using ICPL-Labelling-Technique- A Multidimensional Separation Platform followed by MALDI-TOF-TOF Mass Spectrometry-**; Hakan Sarioglu; Josef Kellermann; Cornelia Ciosto; Alexander Schmidt; Friedrich Lottspeich; *Max-Planck-Institute of Biochemistry, Martinsried, Germany*

PROTEOMICS: SAMPLE PREPARATION AND METHODOLOGIES

WPX 454 **Selective Retention of Hydrophobic Peptides on C18 Modified SEND Arrays**; Shanhua Lin; Rosa Viner; Naotaka Kitagawa; Scot Weinberger; *Ciphergen Biosystems, Fremont, CA*

WPX 455 **"Gel-Free" Tryptic Digestion and Mass Spectrometric Identification of Mammalian Immunoprecipitated Protein Complexes**; Bay Sheldrick[1]; Kathleen Binns[1]; Paul O'Donnell[1]; Christine LeRoy[1]; Miriam Barrios-Rodiles[1]; Pavel Metalnikov[1]; Jeffrey L. Wrana[1]; Keith Ashman[2]; *[1]Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada; [2]MDS Sciex, Concord, Canada*

WPX 456 **Mixed Mode Solid Phase Extraction (MMSPE) for Proteomic Sample Preparation in Micro and Nano-Liter volumes**; Ashok K. Shukla[1]; Mukta M. Shukla[1]; Eric D. Stover[2]; Andreas F. Huhmer[3]; *[1]Glygen Corp., Columbia, MD; [2]ThermoHypersil-Keystone, Bellefonte, PA; [3]ThermoFinnigan, San Jose, CA*

WPX 457 **Identification of Marker Proteins in Colon Cancer by MALDI-MS Using a Compact Disc Microfluidic System**; Daniel Hirschberg[1]; Uwe Roblick[2]; Susanne Becker[2]; Gert Auer[2]; Hans Jörnvall[1]; Tomas Bergman[1]; *[1]Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden; [2]Cancer Center Karolinska, Stockholm, Sweden*

WPX 458 **Implementation of CAF-Enhanced MALDI-PSD Sequencing Using a CD Microlaboratory**; Ulf Hellman[1]; Bo Ek[2]; *[1]The Ludwig institute of Cancer Research, Uppsala, Sweden; [2]Gyros AB, Uppsala, Sweden*

WPX 459 **A Novel Mass Spectrometric Protein Chip Technology For Rapid Determination of Differentially-Expressed Protein Profiles**; Phillip J. Elms; Carol E. Parker; Christoph H. Borchers; *Department of Biochemistry and Biophysics, UNC, Chapel Hill, NC*

WPX 460 **Protein Microarrays by Ion Soft-Landing**; Zoltan Takats[1]; Zheng Ouyang[1]; Bogdan Gologan[1]; Thomas Blake[1]; Andrew J. Guymon[1]; V. Jo Davisson[2]; R. Graham Cooks[2]; *[1]Department of Chemistry, Purdue University, West Lafayette, IN; [2]Department of Medicinal Chemistry, Purdue University, West Lafayette, IN*

WPX 461 **MS and MS/MS Performance of an AP-MALDI Ion Trap Mass Spectrometer for Proteomics**; Belle Chang; Mustafa Unlu; Yi Quan; Melissa Saylor; Terri Addona; Steven A. Carr; Karl Clauser; *Millennium Pharmaceuticals, Inc., Cambridge, MA*

WPX 462 **An Automated Three Dimensional-LC Platform for Global Proteome Profiling**; Arianna Jones; Jun Sun; Wen Yu; Jay Short; Jing Wei; *Diversa Coproration, San Diego, CA*

WPX 463 **Rapid and High Quality Peptide Mapping using Nano-Monoliths in Capillary LC-MS/MS**; Sven Andrecht; Anja Seiler; Dieter Lubda; Ludwig Jakobi; Jonas Anders; Rob Hendriks; *Merck KGaA / LSP R&D MDA Proteomics, Darmstadt, Germany*

WPX 464 **Improved Method of Continuous Deposition of Peptide Eluents for Subsequent MALDI TOF MS and MS/MS Analysis**; Philip J Savickas; Hari Nair; Stephen J Hattan; Igor Smirnov; Todd Taylor; *Applied Biosystems, Framingham, MA*

WPX 465 **Quantitative Analysis of Glycoproteins from Serum and Membrane Proteins**; Hui Zhang; Ruedi Aebersold; *Institute for Systems Biology, Seattle, WA*

WPX 466 **Coupling Surface Plasmon Resonance and Mass Spectrometry for Binding Experiments**; Jens Grote[1]; Nico Dankbar[1]; Erk Gedig[2]; Simone Koenig[1]; *[1]University of Muenster, Muenster, Germany; [2]XanTec Bioanalytics, Muenster, Germany*

WPX 467 **Polymethylmethacrylate (PMMA) Microfabricated Devices for Mass Spectrometry**; Wendy D Dominick; Patrick A Limbach; *University of Cincinnati, Cincinnati, OH*

WPX 468 **MALDI TOF MS and Quadrupole Ion Trap TOF-MS Analysis of Peptide Digests from Proteins Electroblotted onto Immobilon™ Membranes**; Andrew A Gooley[1]; Femia G Hopwood[1]; Janice L Duff[1]; Cameron Hill[1]; Eiji Ando[2]; K Sugiyama[2]; David B Wallace[3]; Patrick W Cooley[3]; *[1]Proteome Systems Ltd, Sydney, Australia; [2]Shimadzu Biotech, Kyoto, Japan; [3]MicroFab Technologies, Dallas, TX*

WPX 469 **Coupling of Open Channel Capillary Isoelectric Focusing to Matrix Assisted Laser Desorption/Ionization Mass Spectrometry for Proteome Analysis**; Newman S-K. Sze; Jonathan B-C. Phua; Michael K-T. Wee; Michelle L-S. Mok; *Genome Institute of Singapore, Singapore, Singapore*

WPX 470 **Integration of Capillary Isoelectric Focusing with Capillary Reversed-Phase Liquid Chromatography as Multidimensional Concentration/Separation Platform for Ultrasensitive Proteome Analysis**; Jinzhi Chen[1]; Brian M. Balgley[1]; Donald L. DeVoe[3]; Eric H. Baehrecke[2]; Cheng S. Lee[1]; *[1]Department of Chemistry and Biochemistry, University of Maryland, College Park, MD; [2]College of Life Sciences, Mass Spectrometry Facility, University of Maryland, MD; [2]Dept. of Mechanical Engineering and Institute for System Research, University of Maryland, MD*

WPX 471 **Quantitative Chemical Proteomics for Identifying Candidate Drug Targets**; Yoshiya Oda[1]; Takashi Owa[1]; Toshitaka Sato[1]; Brian Boucher[2]; Scott Daniels[2]; Hidenori Yamanaka[3]; Yasuhiro Shinohara[3]; Akira Yokoi[1]; Junro Kuromitsu[1]; Takeshi Nagasu[1]; *[1]Eisai Co., Ltd., Tsukuba, Japan; [2]Applied Biosystems, Framingham, MA; [3]Amersham Biosciences K.K., Tokyo, Japan*

WPX 472 **Digestion of Proteins and MALDI-TOF Analysis on Intact IPG Strips**; Srinivas Iyer[1]; Jose Olivares[1]; *[1]Bioscience Division, Los Alamos National Laboratory, Los Alamos, NM; [2]Los Alamos National Laboratory, Los Alamos, NM*

WPX 473 **Analysis of Low Level Protein Mixtures Using Cleavable 13C9/12C9-ICAT Reagent**; Kirk Hansen; Robert Chalkley; Gerold Schmitt-Ulms; Jan Hirsch; Michael Baldwin; Al Burlingame; *University of California San Francisco, San Francisco, CA*

WPX 474 **Interfacing NanoLC and MALDI-TOF MS for the Analysis of Complex Peptide Mixtures**; Ekaterina Mirgorodskaya; Corina Braeuer; Klaus-Dieter Kloeppel; Hans Lehrach; Johan Gobom; *Max Planck Institute for Molecular Genetics, Berlin, Germany*

WPX 475 **On-Line Reaction Monitoring of Enzymatic Conversions By Means of Flow Injection Mass Spectrometry**; André Liesener; Uwe Karst; *University of Twente, Department of Chemical Analysis, Enschede, The Netherlands*

WPX 476 **Thin-Chip Microspray System for High-Performance Fourier-Transform Ion-Cyclotron Resonance Mass Spectrometry of Biopolymers**; Nikolay I. Youhnovski[1]; Joel S. Rossier[3]; Niels Lion[2]; Eugen Damoc[1]; Susanne Becker[1]; Frederic Reymond[3]; Hubert H. Girault[2]; Michael Przybylski[1]; *[1]University of Konstanz, Dep. of Chemistry, Konstanz, Germany; [2]Ecole Polytechnique Federale de Lausanne, Lab. of Electrochemistry, Lausanne, Switzerland; [3]DiagnoSwiss S.A., Monthey, Switzerland*

WPX 477 **Progress Towards the Comprehensive Sequence Analysis of the Hela Cell Nucleus**; Steven P Gygi; Judit Villen; Joshua E Elias; Daniel Schwartz; Sean Beausoleil; Robert Duarte; Mark Jedrychowski; *Harvard Medical School, Boston, MA*

WPX 478 **Optimization of In-Gel Digestion System in Combination with Thin Gel Separation and Negative Staining in 96-Well Plate Format**; Hiroyuki Katayama; Yoshiya Oda; Takeshi Nagasu; *Laboratory of Seeds Finding Technology, Eisai Co. Ltd., Tsukuba, Ibaraki, Japan*

WPX 479 **The Impact of Ion Exchange Parameters on Protein Identification in 2D LC-MS/MS Systems**; Martin Vollmer; Patric Hoerth; Bernd Glatz; *Agilent Technologies Deutschland GmbH, Waldbronn, Germany*

WPX 480 **A Microarray Fabrication System Using Ion Soft-Landing from a Linear Ion Trap Mass Analyzer**; Thomas A. Blake; Zheng Ouyang; Andrew J. Guymon; Sameer Kothari; Zoltan Takats; Bogdan Gologan; R. Graham Cooks; *Purdue University, West Lafayette, IN*

WPX 481 **Nano-HPLC/Mass Spectrometric Analysis of Proteins from Affinity-Purified Plasma Membrane**; Yingxin Zhao; Wei Zhang; Michael White; Yingming Zhao; *UT Southwestern Medical Center, Dallas, TX*

WPX 482 **Towards Single Cell Proteomics: Developing Methodology to Dose One or More Cells with One or More Micrometer-Sized Droplets from an EDB, with MALDI-TOF-MS Measurement of the Cellular Response**; Allen E Haddrell; George R Agnes; *Simon Fraser University, Burnaby, Canada*

WPX 483 **Assessing the Overlap and Complement between 2D Gel / MS and MALDI Tissue Profiling of Human Colon Cancer**; David Friedman; Salisha Hill; HansRudi Aerni; Jeff Keller; Robert Coffey; Pierre Chauraund; Richard Caprioli; *Vanderbilt University, Nashville, TN*

WPX 484 **iTAP: An *in vivo* Protein Complex Purification Technique for Functional Proteomics in Higher Eukaryotes**; Daniel Forler; Thomas Koecher; Michaela Rode; Marc Gentzel; Elisa Izaurralde; Matthias Wilm; *EMBL-Heidelberg, Heidelberg, Germany*

WPX 485 **Comparative Proteomics as a Component of Systems Biology**; Jane A Nagel; Julie A Corbo; Clary B Clish; Stephen Naylor; *Beyond Genomics Inc., Waltham, MA*

WPX 486 **Evaluation of Cleavable ICAT Reagents with an Atmospheric Pressure MALDI Ion-Trap for Differential Protein Expression Experiments.**; Douglas A Whitten; W. Keith Ray; Curtis G Wilkerson; Sarah J Gilmour; Brett S Phinney; *Michigan State University, E. Lansing, MI*

WPX 487 **Differences and Complementarities of LC-QTof and LC-MALDI TOFTOF Datasets**; Anne M. Hansen[1]; Per F. Nielsen[1]; Ole N. Jensen[2]; Thomas N. Krogh[1]; *[1]Protein Science, Discovery, Novo Nordisk A/S, Bagsvaerd, Denmark; [2]Department of Biochemistry and Molecular Biology, SDU, Odense, Denmark*

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WPY 488 **Effects of Free Unmodified Purine Bases, Guanine and Adenine, on Ionization of Three N-7 Guanine DNA Adducts Using LC/ESI/MS/MS**; Yutai Li; Nedyalka , D Dicheva; Gunnar Boysen; Pat Upton; James Swenberg; *University of North Carolina, Chapel Hill, NC*

WPY 489 **Development of a Microbore Liquid Chromatography-Microelectrospray Ionization-Tandem Mass Spectrometry Method to Screen Pharmaceutical Compounds for Reactive Metabolite Formation *in vitro***; John R. Soglia; Sabrina Zhao; Shawn Harriman; Patrick Jeanville; Mark J. Cole; *Pfizer Inc., Groton, CT*

WPY 490 **Detection of the Metabolites of Nitrofurans in Food by HPLC/MS/MS**; Lutz Hartig[1]; Kristin von Czapiewski[2]; Joaquim Soares-Granja[3]; *[1]W.E.J. GmbH, Handels- und Unweltschutzlaboratorium, Hamburg, Germany; [2]Applied Biosystems, Darmstadt, Germany; [3]Applied Biosystems, Courtaboeuf, France*

WPY 491 ***In vitro* Prepolymers in S9 Human Hepatic Fraction by LC-ES-MS-MS.**; Michele J Berode[1]; Jean De Graeve[2]; Pierre Kremers[2]; Youcheng Liu[3]; *[1]Institute of Occupational Health Sciences, Lausanne, Switzerland; [2]University of Liege, Liege, Belgium; [3]Yale Occupational and Medicine Program, New Haven, CT*

WPY 492 **Detection of Sulfoconjugated Compounds by Parent and Neutral Loss Scannings: Application to the Detection of Biomarkers for the Toxicity of Uranium in Rat**; Alexandra Lafaye[1]; Christophe Junot[1]; Eric Ezan[1]; Jean-Claude Tabet[2]; *[1]CEA, Service de Pharmacologie et d'Immunologie, Gif-sur-Yvette cedex, France; [2]LCSOB, UMR, Université Pierre et Marie Curie, 4 place Jussieu, Paris, France*

WPY 493 **Mass Spectrometry Studies of Interactions Between Arsenicals and Proteins**; Guifeng JIANG; Meiling LU; X. Chris LE; *University of Alberta, Edmonton, Alberta*

WPY 494 **Monitoring Fentanyl and NorFentanyl In Urine by LC/ESI-MS Utilizing Multiple Ions for Quantification and Positive Confirmation**; Robert Franey[1]; Kim Lilley[2]; Kate Yu[2]; *[1]Franey Medical Labs, Sandwich, MA; [2]Waters Corporation, Milford, MA*

WPY 495 **HPLC/ESI MS Combined with Immunoaffinity Chromatography for the Rapid Analysis of 2-Amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline (MeIQx) and Two Cytochrome P450 1A2 Metabolites in Human Urine**; Ricky D. Holland; Theresa Gehring; Robert J. Turesky; *National Center for Toxicological Research, Jefferson, AR*

WPY 496 **The Metabolism of Nicotine in the BeWo cell line using CE-MS and LC-MS**; Edward Baidoo; Malcolm Clench; Robert F Smith; *Sheffield Hallam University, Sheffield, UK*

WPY 497 **An Automated LC-MS/MS Assay For The Quantification of 8-iso PGF2α**; Christine Kahle; Yan Ling Zhang; Uwe Christians; *University of Colorado Health Sciences Center, Denver, CO*

WPY 498 **The Application of GC/MS for Metabonomics: Analysis of Urine from Rats Dosed with an Agent Associated with Organ-Specific Toxicity**; Bradley L. Ackermann[1]; James A. Eckstein[1]; Jean-Marie Colet[2]; Craig E. Thomas[1]; *[1]Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN; [2]Eli Lilly and Company, Lilly Development Center S.A., Mont-Saint-Guibert, Belgium*

WPY 499 **High Throughput Quantitative Analysis of Prostaglandins (PG), Leukotrienes (LT) and Their Metabolites by LC/MS/MS for Potential Disease Diagnosis**; Dong Wei; Lily Li; Arthur Rugg; Kojo Abdul-Hadi; Jim Rogers; Alexander Rosenberg; Steve Rounsley; Robert MaCarroll; Mark Trusheim; Roger Wiegand; *Cantata Pharmaceuticals, Woburn, MA*

WPY 500 **Identification of Novel Biomarkers of Genetic State in Mice by NMR, LC/MS, and Metabonomics**; Jennifer H. Granger[2]; Robert S. Plumb[2]; Chris L. Stumpf[2]; Ian D. Wilson[1]; Jose Castro-Perez[3]; Hilary Major[3]; *[1]AstraZeneca R&D Alderley Park, Macclesfield, United Kingdom; [2]Waters Corporation Life Sciences R&D, Milford, Massachusetts; [3]Waters Corporation Manchester, Manchester, United Kingdom*

WPY 501 **LC/ESI/MS Method for the Determination of 2,4,4'-Trichloro-2'-hydroxydiphenyl Ether (Triclosan) in Human Matrices**; Rolf U. Halden[1]; Robert Classon[2]; Guibo Xie[1]; *[1]Johns Hopkins University, Bloomberg School*

of Public Health, Baltimore, Maryland; [2]Johns Hopkins University Bloomberg School of Public Health; Baltimore, MD

WPY 502 **Analysis of Glycidamide-DNA Adducts Derived from Acrylamide in the Mouse**; Mona I. Churchwell[1]; Goncalo Gamboa da Costa[2]; L. Patrice Hamilton[1]; M. Matilde Marques[2]; Frederick A. Beland[1]; Daniel R. Doerge[1]; *[1]National Center for Toxicological Research, Jefferson, AR; [2]Instituto Superior Tecnico, Lisbon, Portugal*

WPY 503 **Use of Electrospray Ionization Mass Spectrometry and Multiple Reaction Monitoring for the Kinetic Characterization of Substrate-based Inhibitors of Fucosyltransferase V: Implications for the Reaction Mechanism**; Andrew Norris; Julian Whitelegge; Jane Strouse; Kym Faull; Tatsushi Toyokuni; *University of California, Los Angeles, CA*

WPY 504 **Selective Digestion and Novel Cleanup Techniques for Detection of Benzo[a]pyrene-DNA Adducts by CE/MS**; Lynn A. Gennaro[1]; Manicka Vadhanam[2]; Ramesh C. Gupta[2]; Paul Vouros[1]; *[1]Northeastern University, Boston, MA; [2]University of Kentucky Medical Center, Lexington, KY*

WPY 505 **Proteomic Study of Human Hepatocytes and Their Response to Environmental Contaminants**; Denise K. MacMillan[1]; Agnes M. Hindemith[2]; *[1]Engineer Research and Development Center, Environmental Chemistry, Omaha, NE; [2]Veterans Administration Medical Center, Omaha, NE*

WPY 506 **A Novel GC/MS/MS Method for the Determination of Pesticide Dialkyl Phosphate Metabolites in Human Matrices**; Roberto Bravo; Gayanga Weerasekera; Lisa M Caltabiano; Carolina Fernandez; Kimberly D Smith; Larry L Needham; Dana B Barr; *Centers for Disease Control and Prevention, Atlanta, GA*

WPY 507 **A Novel MS Based Metabonomic Approach to the Determination of Biomarkers of Drug Toxicity**; Hilary J. Major[1]; Jose Castro-Perez[1]; Steve W. Preece[1]; John P. Shockcor[2]; Andrew Nicholls[2]; Jeff Goshawk[1]; Martin Lunt[1]; Richard Gilpin[1]; *[1]Waters Corporation, MS Technologies Centre (Micromass UK Ltd.), Manchester, UK; [2]Metabometrix Ltd., London, UK*

WPY 508 **Analysis of DNA-Phosphate Adducts in vitro Using Miniaturised LC-ESI-MS/MS and Column Switching: Alkyl Cobalamins Versus Phosphotriesters**; Johanna Haglund[2]; Walter Van Dongen[1]; Filip Lemière[1]; Margareta Törnqvist[2]; Eddy L. Esmans[1]; *[1]Department of Chemistry, University of Antwerp, Antwerp, Belgium; [2]Department of Environmental Chemistry, Stockholm University, Stockholm, Sweden*

WPY 509 **Identification of DNA Adducts Derived from Riddelliine, a Carcinogenic Pyrrolizidine Alkaloid, and from its Principal Metabolite, Riddelliine N-Oxide**; Daniel R. Doerge; Mona I. Churchwell; Ming W. Chou; Lee D. Williams; Jian Yan; Qinsu Xia; Peter P. Fu; *National Center for Toxicological Research, Jefferson, AR*

WPY 510 **Screening for Drug-Glutathione Adducts on a Linear Iontrap Mass Spectrometer: Is There a General Approach for the Detection of Unknown Glutathione-Containing Structures as Markers of Reactive Metabolites?**; Axel Paehler[1]; Andreas Goetschi[1]; Christophe Husser[1]; Florian Klammers[1]; Wolfgang Klemisch[1]; Wolfgang Voelkel[2]; Idelette Weick[1]; Manfred Zell[1]; *[1]F. Hoffmann-La Roche Ltd., Pharmaceuticals, Non-Clinical Drug Safety, Basel, Switzerland; [2]Department of Toxicology and Pharmacology, University of Würzburg, Wuerzburg, Germany*

WPY 511 ***In vitro* Reaction of 1, 3 bis (2-chloroethyl)-1-Nitrosourea (BCNU) with Metallothionein.**; Yetrib Hathout[1]; Michael Colvin[2]; *[1]Department of Chemistry and Biochemistry, University of Maryland, College Park, MD; [2]Department of Surgery, Duke University Medical Center, Durham, NC*

WPY 512 **Development of a GC/MS Method to Determine Hemoglobin N-Valine Adducts from (1-chloroethenyl)oxirane, a Chloroprene Metabolite**; Md. Yeakub Ali; Harrell E. Hurst; *University of Louisville Department of Pharmacology and Toxicology, Louisville, KY*

WPY 513 **Detection of N1-Inosine Adducts Derived from Butadiene by LC-ESI-MS/MS**; Gunnar Boysen; Yutai Li; Ramiah Sangaiah; James A Swenberg; *University of North Carolina at Capel Hill, Chapel Hill, NC*

WPY 514 **Structural Characterization and Quantitative Analysis of 1,2,3,4-Diepoxybutane-Induced DNA-DNA Cross-Links**; Soobong Park; Natalia Tretyakova; *University of Minnesota, Minneapolis, MN*

WPY 515 **Method Development and Validation of a Very Sensitive Assay for the Determination of Drug A In Dog Plasma Using Liquid-Liquid Extraction Coupling with LC/MS/MS Analysis**; David L. Dube; John Yu; Mark Castles; *Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT*

WPY 516 **A Novel Method to Determine Phenolic Metabolites of Contemporary Pesticides in Human Urine Using Solid Phase Extraction with GC-MS/MS and Isotopic Internal Standards**; Gayanga Weerasekera; Roberto Bravo; Lisa M. Caltabiano; Carolina Fernandez; Kimberly D. Smith; Larry L. Needham; Dana B. Barr; *Centers for Disease Control and Prevention, Atlanta, GA*

WPY 517 **Mass Spectrometric Characterization of the Adducts Produced by the Alkylation of Protein Disulfide Isomerase by the Episulfonium Ion Derived from the Glutathione Conjugate of 1,2-Dichloroethane**; Rhonda S. Kaetzel[1]; Martha Staples[2]; Brian Arbogast[2]; Elisabeth Barofsky[2]; Douglas F. Barofsky[2]; Donald J. Reed[3]; *[1]Environmental and Molecular Toxicology, Oregon State University, Corvallis, OR; [2]Department of Chemistry, Oregon State University, Corvallis, OR; [3]Department of Biochemistry and Biophysics, Oregon State University, Corvallis, OR*